

Newly qualified nurse transition:
stress experiences and
stress-mediating factors –
a longitudinal study

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Abstract

The first twelve months for newly qualified nurses (NQNs) is a time of transition producing a myriad of experiences, emotions and personal development. There has been very little research into the phenomenon that has emanated from the UK and what is available may no longer reflect contemporary NQNs' experiences.

Using a pragmatic epistemology, this unique four-phased, mixed methods, cohort study investigated NQNs' transition through monitoring stress experiences together with potentially mediating factors of coping, social support, hardiness and resilience. Adult branch NQNs (n= 288) completed questionnaires on nursing stress and mediating factors at the point of qualification (baseline). The original sample were followed-up at six months (n= 107) and then at twelve months post-qualifying (n= 86), along with individual interviews (n= 14).

The results indicate transition as a complex process lasting 6-12 months depending on the NQN's workplace experience. Multiple stressors included 'workload', which was consistently the most frequently reported, due to factors such as inadequate staffing levels.

The NQNs revealed impressive personal qualities; for example, a forthright commitment to the high ideals of professionalism and quality standards of patient care, together with their attention to continued learning and development as a nurse. Hardiness, resilience, increased age and, most notably, prior healthcare experience, each mediated the frequency of reported stressors over the first twelve months. Active support from a 'good' team and an inspirational manager were also important stress-mediators. Personal barriers included extreme fluctuations in confidence, which was affected negatively by colleagues' incivility, or mediated through workplace colleague support.

An integrated model for NQN transition is presented to depict the core elements of the evolving professionalisation and socialisation process. The model is entwined with the NQNs' ability to undertake a cognitive appraisal of the stressors within their work environment, as the NQN progressed towards adapting to their new status, roles and work environment.

Key recommendations include: the development of a transition preparation process for pre-registration nurse education; a proposed new model of preceptorship; improvement of the management of workplace incivility for healthcare organisations that employ NQNs; and research to further explore the benefits of prior healthcare experience. These are some of the pragmatic, practical outcomes of this research.

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To all the participants that took part in this research: without you giving me your time and being so candid in your responses this research could never have happened. I hope through our shared efforts that we will be able to make a difference for the next generation of newly qualified nurses.

*This thesis is dedicated to the most resilient person I have ever known,
my grandmother.*

Maud Halpin (30th January 1913 – 29th September 2013)

List of abbreviations

The following table is a list of abbreviations that are used throughout this thesis.

Abbreviation	Full meaning of the abbreviation	Explanation of the abbreviation
A&E	Accident and Emergency	The emergency care department within a hospital
Advanced DipHE	Advanced Diploma in Higher Education	When the advanced level Diploma course was in nursing the graduate was eligible to register as a qualified nurse. This course is no longer available in the UK.
ANOVA	Analysis of Variance	<i>“a statistical procedure that uses the F-ratio to test the overall fit of a linear model”</i> (Field, 2009, p. 781)
Band	Band	Using the ‘Agenda for Change’ framework introduced into the NHS in December 2004, most jobs in the NHS are allocated a Band from 1-9. The system regulates the grading and pay of specific jobs. All registered nursing jobs are Band 5 upwards. All healthcare assistant jobs are Bands 2-4.
Branch	Branch of nurse education/nursing practice	The four areas of nurse education and nursing practice in the UK (adult, mental health, learning disabilities and children’s nursing) were referred to as a ‘branch’ of nursing by the UKCC and subsequently by the NMC until the publication of new standards for pre-registration nurse education in the UK came into force in 2011 (NMC, 2010b). From 2011 onwards each ‘branch’ of nursing became known as a ‘field’ of nursing (see ‘Field’).
BSc/BSc (Hons)	Bachelor of Science	Degree course that can be with or without Honours. When the course is in nursing the graduate is eligible to register as a qualified nurse.
CD-RISC	Connor-Davidson Resilience Scale	Title of a resilience questionnaire (Connor and Davidson, 2003)
CINAHL	Cumulative Index to Nursing and Allied Health Literature	Database of published papers related to nursing and allied health

Abbreviation	Full meaning of the abbreviation	Explanation of the abbreviation
COPE	Coping Orientation to Problems Experienced	Title of a coping strategies questionnaire (Carver, Scheier and Weintraub, 1989)
DipHE	Diploma in Higher Education	When the Diploma course was in nursing the graduate was eligible to register as a qualified nurse. This course is no longer available in the UK.
DN	District Nursing	A nursing role/job based in the community
DRS	Dispositional Resilience Scale	The generic name of Bartone's hardiness questionnaires. Usually a number follows DRS to indicate the number of items in the version i.e. 15, 30 or 45.
DRS15-R	Dispositional Resilience Scale 15	Title of a 15 item hardiness questionnaire (Bartone, 1999)
Field	Field of nurse education/nursing practice	Under the current standards for pre-registration nurse education in the UK, there are four fields of nurse education leading to registration with the NMC in a specific field of nursing practice. The four fields of nursing are adult, mental health, learning disabilities and children's nursing (NMC, 2010b). Before 2011, each 'field' of nursing was called a 'branch' of nursing (see 'Branch').
HCA	Healthcare Assistant	A Band 2-4 person working in any healthcare setting (see 'Band')
HEI	Higher Education Institution	An organisation certified to provide pre and/or post-registration nurse education in the UK
IV	Intravenous	Route of administration of medication, directly into the bloodstream
MEDLINE	Medical Literature Analysis and Retrieval System	It is also referred to as MEDLARS. It is a database of published papers related to medicine, nursing, pharmacy, dentistry, veterinary medicine and healthcare.
MOS	Medical Outcomes Survey	Relates to the 'MOS Social Support Survey', a functional social support questionnaire (Sherbourne and Stewart, 1991)
n/a	Not applicable	Does not apply

Abbreviation	Full meaning of the abbreviation	Explanation of the abbreviation
NHS	National Health Service	A publicly funded healthcare service, free at the point of access for UK residents for the vast majority of the services it offers. Each of the four countries that make up the UK runs their own version of the NHS, though some functions of the NHS are still controlled by the UK Department of Health.
NMC	Nursing and Midwifery Council	UK statutory body for all nurses and midwives established by the UK parliament through the Nursing and Midwifery Order 2001. It is responsible for regulating nursing and midwifery as well as maintaining a register of all practitioners.
NSS	Nursing Stress Scale	Title of a stress in nursing questionnaire (Gray-Toft and Anderson, 1981)
Obs chart	Observation chart	A chart where a patient's vital signs are recorded such as blood pressure, heart rate, respiratory rate and temperature
OECD	Organisation for Economic Co-operation and Development	An organisation that serves as a joint forum for social, economic and environmental issues. It has representation from the governments of thirty-four member countries including most European Union countries.
PDN	Practice Development Nurse	Usually a Band 6 or above nurse whose role includes staff development (see 'Band')
PIN/PIN number	Professional Identity Number	A unique code assigned by the NMC to each person at the point of entry onto the UK register of qualified nurses and midwives
RCN	Royal College of Nursing	A UK union organisation for registered nurses, though it also accepts nursing students and healthcare assistants
SD	Standard Deviation	<i>“an estimate of the average variability (spread) of a set of data measured in the same units of measurement as the original data”</i> (Field, 2009, p. 794)
TIA	Transient Ischaemic Attack	A temporary occlusion of a blood vessel in the brain. It is a harbinger for a stroke or a heart attack.
UK	United Kingdom of Great Britain and Northern Ireland	Sovereign country consisting of England, Wales, Scotland and Northern Ireland

Abbreviation	Full meaning of the abbreviation	Explanation of the abbreviation
UKCC	United Kingdom Central Council for Nursing, Midwifery and Health Visiting	UK registering body for all nurses and midwives until it was disbanded and reformed as the NMC in 2001 (see 'NMC')

List of statistical abbreviations

The following table is a list of statistical abbreviations that are used throughout this thesis.

Statistical abbreviation	Full meaning of the abbreviation	Explanation of the abbreviation
α	Cronbach's coefficient alpha	The outcome of a test to show internal consistency reliability
ANOVA	Analysis of Variance	<i>"a statistical procedure that uses the F-ratio to test the overall fit of a linear model"</i> (Field, 2009, p. 781)
CI	Confidence Interval	A range of values around which the true value or prevalence is likely to be
df	Degrees of Freedom	<i>"...the number of 'entities' that are free to vary when estimating some kind of statistical parameter."</i> (Field, 2009, p. 784)
F	F-ratio	The difference between group means and within group means
n	Number	The number of participants in the sample, either the overall sample or the sample in a given test
p	p value	The significance of the outcome of a given test
r	Correlation coefficient	The association between two continuous variables within a -1 to +1 range
t	t-statistic	In the context of the 'independent samples t-test', the t-statistic indicates <i>"...whether the difference between two means are significantly different from zero."</i> (Field, 2009, p. 795)
SD	Standard Deviation	<i>"an estimate of the average variability (spread) of a set of data measured in the same units of measurement as the original data"</i> (Field, 2009, p. 794)

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Chapter 1 - General background

1.0 Introduction

Do newly qualified nurses flourish within the healthcare system they join on graduating from their nurse education? This chapter provides the background for why this pragmatic, mixed methods, cohort study of newly qualified nurse transition, work-related stress and stress-mediators was needed. The chapter commences with an overview of the radical changes that have occurred within UK nurse education and changes that have occurred in nursing student demographics, before defining the term ‘newly qualified nurse’ and exploring the idea that there is a period of transition when healthcare graduates first enter the workforce. Workforce issues are then explored: the nursing workforce supply shortfall coupled with the projected increased service and workforce demand, newly qualified nurse attrition from the workforce, and stress associated with nursing. Thereafter, the personal inception for this research is provided, followed by an overview of the chapters that follow this chapter that make up this thesis.

1.1 UK nurse education and nursing student demographics

Prior to the introduction of ‘Project 2000’ in the 1990’s (UKCC, 1986), pre-registration nurse education in the UK was based on an apprenticeship model where nursing students were part of the nursing workforce and were linked to a School of Nursing for their theoretical education, though the theoretical component was small (Linsley *et al.* 2008). They learnt through ‘hands on’ experience in a hospital ward, which culminated in a national written examination (RCN Policy Unit, 2007). ‘Project 2000’ radically changed nurse education in the UK as it elevated nurse education to Diploma level within a higher education institution (HEI) and took nursing students out of the workforce and gave them supernumerary status (RCN Policy Unit, 2007). The UKCC (1999) reviewed and amended ‘Project 2000’ nurse education increasing the branch-specific component (adult, mental health, learning disabilities and children’s nursing) to two years within the three year programme and placed a greater emphasis on the need for degree level pre-registration nurse education. The latest evolution in pre-registration nurse education occurred in

September 2011. The four branches of nursing were re-named as fields of nursing (NMC, 2010b). Furthermore, all new pre-registration nurse education programmes must be at degree level or above in recognition of the multitude of competencies that nurses need in order to provide a high standard of multi-disciplinary care to patients in highly complex healthcare settings (NMC, 2010b). Essentially, nursing in the UK has moved to be a graduate profession.

Coupled with this evolution in pre-registration nurse education is the change that has been seen in those attracted into nurse education. Buchan (1999) stated that in the 1970's and 1980's, the majority of UK nursing students were seventeen year old school-leavers and even into the 1990's, most nursing students were aged eighteen to twenty-four years old. Buchan (1999) made reference at the time that there was evidence that there was an increasing age trend developing in the nursing student population. In a survey of n= 4,547 UK nursing students in August/October 2008 the increased age of nursing students compared to previous decades was demonstrated. The results showed 35% were eighteen to twenty-four years old and 47% were over thirty years old, of which 19% were over forty years old (RCN, 2008). The survey also identified that 65% were employed prior to commencing their nurse education, of which 21% had been employed within the NHS before commencing their nurse education, predominantly as healthcare assistants (HCAs) or support workers (RCN, 2008). The survey failed to provide a mean age for the participants, which would have aided comparison to other research, but the results imply that UK nursing students are not predominantly school-leavers, rather they are older with employment experience, but that experience is not necessarily from having been an HCA.

The evolution in pre-registration nurse education in the UK and the change in who today's nursing students are means that transferring and generalising research findings pertaining to newly qualified nurses from previous UK research is questionable. Furthermore, drawing from international research may be even more questionable because of the likely differences in factors such as age, experience, nurse education, culture, language and healthcare systems.

1.2 Defining a newly qualified nurse and the transition period

Nursing students in the UK and internationally undergo several years of education consisting of taught and practical components in order to be qualified and registered practitioners. In the UK, the graduate nurse is then required to register with the Nursing and Midwifery Council (NMC) in order to practice as a qualified nurse. The 'newly qualified nurse' is therefore 'new' to their qualified status and professional practice. However, there is no set period of time in the literature for how long a nurse can be regarded as newly qualified (Unruh and Nooney, 2011). Most research that investigates newly qualified nurses appears to set the limit at up to three years post-qualifying (Hopkinson, Hallett and Luker, 2005; Deppoliti, 2008; Smith, Andrusyszyn and Laschinger, 2010). However, the sample used by Wu *et al.* (2012) in their investigation of newly qualified nurses (work-related stressors and intention to leave) included nurses that had been practicing up to nineteen years (with an Associated degree qualification) because they had completed a Bachelor of Science nursing degree within three years (selection criteria). This is an extreme example of how variable the application of the label 'newly qualified nurse' is within the literature.

Theoretically, completion of nurse education should produce nurses that are able to enter the workforce and perform in an equivalent manner to the nurses already working in healthcare organisations. However, newly qualified nurses are not regarded as equivalent practitioners in the time that immediately follows qualification (Clark and Holmes, 2007; Romyn *et al.* 2009; Bisholt, 2012b), but they do eventually achieve equivalent status. Therefore, there must be a period of transition from one status to the next status.

Transition is a word that has been utilised to denote a process or a passage of developmental change and adaptation for a person. It requires the person to disengage from their old behaviours and the way they had defined themselves and construct a new self-identity (Kralik, Visentin and van Loon, 2006). The idea that newly qualified nurses enter a period of transition is not unique amongst healthcare professionals; for example, Teunissen and Westerman (2011) suggested doctors encounter several episodes of transition as they progress to becoming a speciality

doctor. Existing research has suggested that the transition experience of newly qualified nurses lasts six to twelve months (Casey *et al.* 2004; Romyn *et al.* 2009; Andersson and Edberg, 2010). This understanding can be applied to defining a newly qualified nurse. Therefore, for the purposes of this research and thesis, a newly qualified nurse is defined as a person who has completed all theory and practice requirements of their nurse education programme and has subsequently registered with the NMC to practise in the UK as a qualified nurse, and is within twelve months of the point at which they completed all aspects of their nurse education. Newly qualified nurse transition is the process and experience of personal and professional change that immediately follows qualification and registration as nurse.

1.3 The NHS workforce need for newly qualified nurses

In a survey of one hundred and nine organisations that delivered National Health Service (NHS) services and employed nurses, 83% reported a shortfall in filling vacant nursing posts, the majority of which were at Band 5 (NHS Employers, 2014). This is the Band at which a newly qualified nurse would typically commence employment within the NHS in the UK. Furthermore, the Centre for Workforce Intelligence (2013) projected that there could be up to 23% more demand for nurses in England by 2016, yet they predicted there could be as much as a 5% reduction in the supply of nurses to meet that demand because of reduced nurse education commissions and nurses retiring, emigrating or leaving the workforce for other reasons.

Data from the NMC shows that in August 2013 there were 671,840 registered nurses and midwives (NMC, 2013). However, there are some nurses that appear on the NMC register who have left nursing practice (Health Education England, 2014) and older nurses will appear on the register, but are more likely to work part-time (Buchan and Seccombe, 2010). The latter is a significant issue given in 2008, 65% of nurses and midwives were over forty years of age of which 31% were over fifty years old and less than 10% were younger than thirty years old (NMC, 2008a). There is therefore likely to be a sizeable proportion of nurses that are part-time

workers. The implication of these additional factors is that the supply of nurses to meet the projected NHS workforce 2016 demand will be worse than predicted.

From the March 2008 NMC data, there were 25,864 new registrants, though this figure includes qualified nurses from overseas coming to the UK to practise and nurses re-entering the register following completion of a 'return to nursing' programme due to lapsed registration (NMC, 2008a). Consequently, it is not possible to identify exactly how many first registration newly qualified nurses enter the register annually. This was an issue alluded to in an analysis of the number of new graduate nurses in the Organisation for Economic Co-operation and Development (OECD) countries (OECD, 2013).

Examination of the number of nurses graduating from pre-registration programmes provides a guarded ability to estimate the number of newly qualified nurses the UK annually produces. In 2009/2010, 10,560 adult nurses graduated in England, reducing to 9,877 in 2013/2014 (Health Education England, 2013). Despite some estimates that one third of new UK nursing graduates do not register with the NMC (Finlayson *et al.* 2002; Oulton, 2006), overall the data implies thousands of newly qualified nurses are produced per year and will enter UK healthcare services. Therefore, newly qualified nurses not only represent the future of the nursing profession (Laschinger *et al.* 2010) and are the experienced nurses of tomorrow (Mills and Mullins, 2008), they are a vital commodity that will assist in addressing critical supply/demand nursing workforce issues.

1.4 Newly qualified nurse attrition from the workforce

Given the global shortage of nurses to meet increasing service demands (Oulton, 2006), concern has been raised about newly qualified nurse attrition from the workforce: the risk of turnover and actual turnover of newly qualified nurses. In a Canadian study of the turnover intentions of $n = 309$ newly qualified nurses, Lavoie-Tremblay *et al.* (2008) found 82% had held the same job since qualifying. For participants in this category, 57% had been in the job two years or less and 41% had been in their job between two and three years. This was an encouraging result

suggesting a high degree of retention of newly qualified nurses. However, they also found that those that indicated an intention to quit their current job (62% of participants) had a significant effort/reward imbalance and lacked support from colleagues and managers. A fifth of participants cited difficult and exhausting working conditions as the reason. This was the primary reason given by those that indicated an intention to leave the profession. The lack of diversity of the sample was a limitation in the study as recruitment was restricted to French speaking newly qualified nurses aged twenty-four years or less, who worked in the public sector and had undertaken their nurse education in Quebec. Also, an expressed 'turnover intention may have been an atypical response at the time of data collection.

Beecroft, Dorey and Wenton (2008) investigated turnover intention from their workplace and individual factors including age and coping strategies. Their sample consisted of $n = 889$ paediatric newly qualified nurses that over seven years had entered and completed an American residency programme in six different hospitals. The results showed that the younger the participant was, the more likely they were to indicate a turnover intention. Furthermore, those who indicated a turnover intention had a lower self-rating of their skills-related confidence and nursing competency, as well as using less positive reappraisal, less planful problem-solving and more escape-avoidance coping strategies.

Research that has identified the reasons for actual turnover may provide more insight because it constitutes actual attrition, either from an organisation or the profession. Bowles and Candela (2005) surveyed $n = 352$ nurses that had been qualified up to five years in one American state to determine how long they had stayed in their first job post-qualifying and the reasons why they left their job. They found that 30% left within one year. Analysis revealed the reasons for leaving were: patient care issues (patient acuity, poor nurse/patient ratios, feeling that patient care was unsafe), workplace issues (management issues, lack of support and guidance, having too much responsibility), relocating to another nursing speciality or part of the country, and employment factors (salary, schedule, benefits). Many of these reasons were work-related stressors, however, conversely, Kowalski and Cross (2010) identified that the reasons why newly qualified nurses resigned and thus dropped out of an American residency programme during their first twelve months post-qualifying

were unrelated to work-related stress or a lack of support. They left for financial and education improvement reasons, family reasons, or because of their living arrangements, hence, a range of reasons unrelated to their job.

This brief examination of turnover research in newly qualified nurses provides some evidence that newly qualified nurses think about or actually leave their job for personal development reasons, which Shirey (2009) felt should be expected in nurses that have been qualified for less than ten years. Turnover can result from solely personal reasons that will be beyond the control of any organisation. However, as shown there are other reasons that directly relate to adverse experiences in the workplace, other than a lack of developmental opportunities. Overall, turnover research tends to lack overt links to the transition experiences of newly qualified nurses.

1.5 Stress associated with nursing

The term ‘stress’ is an overarching term that constitutes a continuum from eustress at the most positive end to severe distress at the most negative end (McVicar, 2003). A survey of NHS staff in 2007 found 33% reported experiencing work-related stress (The Commission for Healthcare Audit and Inspection, 2008). In 2013, this percentage had increased to 38.6% (NHS England, 2014). Specifically considering the nursing workforce, Mark and Smith (2012) reported that from their large sample of n= 870 nurses from across the UK, 45% reported that work-related stress caused them to be ill or had exacerbated a pre-existing condition. This evidence suggests that many UK nurses experience work-related stress. The consequences of prolonged stress for the individual nurse can be progression to burnout, a syndrome characterised by emotional exhaustion and cynical attitudes and feelings particularly towards patients (Maslach and Jackson 1981), as well as consequences for their health and home-life outside of work (O’Henley, Curzio and Hunt 1997).

Potentially, newly qualified nurses are likely to experience work-related stress while they progress through a period of transition with potentially far-reaching consequences, given the evidence from the general nursing workforce. However, a

robust examination of work-related stress cannot ignore other potentially relevant factors. A ‘mediator’ is a factor within a process or an effect (Pearsall, 2001). As a result it can be a positive or a negative factor. Coping and social support have both been specifically described as “*mediators*” in the stress experience (Lazarus and Folkman, 1984, p. 158; Bennett *et al.* 2001; Wu *et al.* 2011). Likewise, Lazarus and Folkman (1984) suggested personality traits influence how a person appraises a stressful situation, thus traits such as hardiness (Kobasa, Maddi and Kahn, 1982) could be described as mediators.

1.6 Personal inception for this research

I qualified as an adult branch nurse in 1993 and subsequently worked in critical care units in England until 2002 when I commenced working as a Senior Lecturer in pre-registration adult nursing. This research and thesis was borne from my commitment and passion for nursing and teaching the next generation of nurses, but what happens to the newly qualified adult branch nurses, or adult field nurses as they became known as after 2010 (see Section 1.1), that I helped to produce? Does the healthcare system that I release them into at the end of their three years of nurse education continue to support and nurture their fledgling skills, or do they encounter a stressful transition with wide-ranging personal, professional and organisational consequences? This was the personal starting point for this research.

1.7 Overview of the thesis

Following this general background chapter, Chapter 2 presents the theoretical background to the present study. Theories of transition, stress, coping, social support, hardiness and resilience are explored, culminating in a model to illustrate their interconnectedness.

Chapter 3 provides a critical review of the published literature specifically related to newly qualified nurse transition, stress, coping, social support, hardiness and resilience as well as qualified nurses and nursing students where relevant. The review reveals that no published literature was identified that mirrored this

investigation. This chapter concludes with the research aims and research questions that informed all subsequent stages of the study.

Chapter 4 critically describes the pragmatic epistemology that influenced and guided this research as well as the mixed methods methodology that informed all aspects of the method deployed. The method is described in detail to provide an accurate description of how this four phase cohort study was carried out and how the resulting quantitative and qualitative data were analysed.

The results are presented in three distinct chapters. Chapter 5 describes the sample that participated at each phase leading into themed ‘aspects of transition’. Chapter 6 presents the quantitative, qualitative and merged results for stress, coping, social support, hardiness and resilience. The relationship between stress and potential stress-mediating factors is explored throughout this chapter. Chapter 7 looks to the future reflecting the results that were the participants’ recommendations for future practice. Chapter 7 culminates with a mixed methods results synthesis.

Chapter 8 discusses the major findings of this research: the participants’ transition experience, key stressors they reported, the coping strategies they used, the social support they accessed, changes in their hardiness and resilience and initiatives to help future newly qualified nurses during transition. Throughout this chapter the discussion is contextualised by relevant literature and the theories that informed this research.

Chapter 9 pulls all aspects of this research together for a conclusion that directly answers the research questions using the major results of this investigation. The strengths and limitations of this study are acknowledged before a final concluding synthesis leads into recommendations for pre-registration nurse education, healthcare organisations and further research.

1.8 Chapter summary

This chapter has provided the background for why the present study was originally conceived and the multifactorial need for it to be conducted. Pre-registration nurse education in the UK has changed radically over the last few decades having developed from an apprenticeship model to a HEI-based degree only standard of education. The demographics of the nursing student have also changed radically, as students now tend to be older with previous work experience, though not necessarily related to healthcare. These factors were suggested as limitations in applying the outcomes of existing UK research on newly qualified nurses. The applicability of international research was potentially even more restrictive when differences in healthcare systems, culture and language were also considered.

Issues relevant to the healthcare workforce were explored. Stress has been associated with nursing work with far-reaching personal, professional and organisational implications. The NHS is predicted by 2016 to experience a workforce supply/demand shortfall, which makes retaining the thousands of newly qualified nurses produced in the UK each year vital.

The term ‘newly qualified nurse’ was defined drawing from the current understanding that newly qualified nurses enter a period of transition upon graduating as a qualified practitioner. This definition of ‘newly qualified nurse’ was stipulated not least because of the absence of a consistently applied definition in the literature.

This chapter has explored the general background for why this investigation was conceived. In the next chapter, the theories associated with newly qualified nurse transition along with stress, coping, social support, hardiness and resilience are presented that ultimately framed this study.

Chapter 2 - Theoretical background

2.0 Introduction

The previous chapter presented a general background to justify the need for the current research and introduced concepts including a period of transition in newly qualified nurses, stress in nursing and stress-mediating factors. This chapter examines the theories that have been proposed and were utilised for each of the components that were investigated in this research: newly qualified nurse transition, stress, coping, social support, hardiness and resilience. The chapter concludes with a model to diagrammatically present the interconnectedness and relevance of the theories presented.

2.1 Newly qualified nurse transition

There have been three influential theories ascribed to explaining the adaptive and developmental processes newly qualified nurses' experience in the formative months of their qualified nursing career. 'Reality shock' was proposed by Kramer (1974). Duchscher (2009) used the theory of 'reality shock' to develop 'transition shock'. The skill acquisition and competency theory of 'novice to expert' expounded by Benner (1984) has also been ascribed. Each of these theories is critically discussed in this section.

Kramer (1974, p. 3) coined the term 'reality shock' to describe the physical, emotional and social responses of a newly qualified nurse that can occur as a result of the disparity between what was expected as a result of their nurse education and the reality of the workplace post-qualifying. Kramer (1974, p. 3) called this stark difference encountered by newly qualified nurses 'professional-bureaucratic work conflict' and suggested it was the primary cause of 'reality shock'.

Kramer's (1974) 'reality shock' was not proposed as a direct outcome of any empirical investigation, which compromises the integrity of the theory, rather it drew heavily from the related phenomenon of 'culture shock', which was already recognised. Nursing students were socialised into being a qualified nurse by having

behaviours and attitudes, expectations, skills and norms instilled in them through their nurse education (Kramer, 1974). Nursing students therefore developed their professional ideals and values of nursing, by and within the subculture of the School of Nursing as it was in the United States of America at that time (Kramer, 1974). Once the nursing student commenced working as a qualified nurse within a healthcare provider organisation, they encountered a different subculture. This was a subculture that they had not been socialised into. This was how Kramer (1974, p. 4) linked ‘culture shock’ and ‘reality shock’ and came to propose four stages to ‘reality shock’: ‘honeymoon’, ‘shock or rejection’, ‘recovery’ and ‘resolution’.

At the initial ‘honeymoon’ stage, the newly qualified nurse had a “*fascination*” for their new workplace or certainly there were parts of their new work situation that were fascinating to them. They still had links to their previous subculture, friends and colleagues, which meant they were not totally disconnected from the subculture they had known (Kramer, 1974, p. 5).

When the ‘honeymoon’ stage passed, the ‘shock or rejection’ stage occurred. At this stage, the discrepancy between ideals and the way things were actually done became apparent. ‘Interpersonal incompetency’ occurred because the newly qualified nurse had not learnt about the new subculture at this stage. They could not interpret cues, the actions of others or make predictions (Kramer, 1974, p. 30). At this stage, the newly qualified nurse may reject their previously held ideals, reject their previous subculture of nurse education and reject themselves, regarding themselves as a failure. They may also show ‘protective isolation’, withdrawing and only interacting with colleagues that held the same values and ideals (Kramer, 1974, p. 6).

Following the ‘shock or rejection’ stage came the ‘recovery’ stage where the newly qualified nurse started to show the ability to “*weigh, assess and objectively evaluate*” the new subculture of the workplace (Kramer, 1974, p. 7). This culminated in the ‘resolution’ stage, or the ‘biculturalism’ stage as Kramer appeared to prefer calling it, drawing on the culture-based connections of ‘reality shock’. At this stage, the process of self-discovery that the newly qualified nurse had undergone resulted in them understanding the new subculture, its cues and nuances and its expectations of them (Kramer, 1974).

Kramer (1974) used the theoretically derived 'reality shock' as a basis for empirically testing the benefits of 'The Anticipatory Socialisation Programme', a programme Kramer designed in an attempt to decrease 'reality shock' and help a sample of newly qualified nurses towards 'biculturalism'. This was the primary aim of the research by Kramer (1974), but qualitative support for the stages of 'reality shock' was retrospectively inserted with only results for the 'honeymoon' and 'shock or rejection' stages evidenced. Kramer (1974) acknowledged that there was no research to support the existence of the 'resolution' stage at that time. This may have been because deriving empirical evidence for the stages of 'reality shock' was not the aim of the research. This longitudinal American study spanning two years post-qualifying may have produced supporting evidence had it been more coherently designed.

Duchscher (2009) argued that 'transition shock' was an "*experience*" within the first stage of professional role adaptation in newly qualified nurses and represented their initial period of socialisation. Duchscher (2009) suggested that transition was the time that bridged migrating from being a nursing student to being "*a professional practitioner*", though the newly qualified nurse is a professional practitioner, so it implies some level of competence and proficiency that the newly qualified nurse did not commence their qualified nursing career with.

Duchscher (2009) briefly detailed four qualitative studies conducted between 1998 and 2007, three of which used Canadian newly qualified nurses and one used Australian newly qualified nurses. By amalgamating the data, a model and a framework for 'transition shock' was proposed, though the methodological approach employed was not adequately presented (Whitehead *et al.* 2013). Likewise, there were no demographic or job location details presented. Factors like these would have aided judgement on how applicable the subsequent model and framework would be to all newly qualified nurses.

Duchscher (2009) suggested the first one to four months was the time when the most intense personal and professional adjustments occurred and it was only this time span that was used to illustrate 'transition shock'. Duchscher (2009) did not disclose if the newly qualified nurses had actually been at the point of qualification when data were

first collected, but reference was made to them having first completed a workplace induction, orientation programme and a period of working alongside a more senior nurse, suggesting a period of time had lapsed before data collection commenced. This certainly amounted to an international difference to how newly qualified nurses in the UK typically enter the workforce and it made it challenging to translate how long ‘transition shock’ may last. It was possible that the newly qualified nurses had actually been qualified at least six months. More broadly, this is a factor when attempting to determine the duration of transition.

Duchscher (2009) suggested that an important component of ‘transition shock’ was the contrast between the knowledge, roles, responsibilities, relationships and performance expectations the newly qualified nurse had come to be familiar with as a nursing student and the less familiar knowledge, roles, responsibilities, relationships and performance expectations they now experienced as a newly qualified nurse. Duchscher (2009) stated that this led to exhaustion and isolation and created disorientation, confusion, self-doubt and a sense of loss for the newly qualified nurse. Duchscher (2009) called this the Transition Shock Model[®], but did not provide any qualitative results to support the model.

In addition to the Transition Shock Model[®], Duchscher (2009) proposed that ‘transition shock’ was expressed in emotional, socio-cultural and developmental, physical and intellectual ways by the newly qualified nurse. These four methods of expression constituted the Transition Conceptual Framework[®]. According to Duchscher (2009), the Transition Conceptual Framework[®] encapsulated both expressions of and mitigating factors within ‘transition shock’. For example, Duchscher (2009) detailed how some newly qualified nurses described a few nurses as ‘dominant’ and how these nurses seemed to deliberately act to diminish their confidence. While not acknowledged as such, this would seem to be an example of how workplace incivility affected the newly qualified nurses. Another example was that newly qualified nurses felt that senior nurses and their manager expected them to be able to perform and take on the workload akin to a long-serving nurse (Duchscher, 2009). Arguably, examples such as these are neither an expression nor a mitigating factor. They are external situational factors that impact on a newly qualified nurse’s transition experience.

Duchscher (2001) conducted a phenomenological study of five newly qualified Canadian nurses using interviews and journal entries to determine the socialisation and professionalisation of newly qualified nurses over their first six months post-qualifying. From this small sample, three stages of transition were identified: 'doing nursing', 'the meaning of nursing' (two to three months post-qualifying), and 'being a nurse' (approximately five months post-qualifying). Duchscher (2008) conducted a larger study (n= 14 newly qualified Canadian nurses) using interviews at one, three, six, nine, twelve and eighteen months post-qualifying to stage transition as: 'doing' (one to three/four months post-qualifying), 'being' (three/four to nine months post-qualifying), and 'knowing' (nine to twelve months post-qualifying). The stages identified in both of these studies were essentially the same. The main difference was the elongated time frame suggested for progression and that transition moved from being described as sequential (Duchscher, 2001) to evolutionary and not strictly linear or prescriptive (Duchscher, 2008).

In the initial stage of 'doing nursing' (Duchscher, 2001) or 'doing' (Duchscher, 2008), newly qualified nurses were self-absorbed, rather than being externally focused on the patient. They wanted to be a valued part of the team, work independently, efficiently complete their tasks, but felt thwarted in this aim because they had to keep asking their colleagues for help. Newly qualified nurses regarded not knowing something as a weakness, rather than considering this as normal at their fledgling stage of development. They demonstrated an avid need to learn in order to perform, but they lacked the ability to modify or manipulate the knowledge they had. They felt unprepared for the sudden responsibility and heavy workload that occurred.

By 'the meaning of nursing' (Duchscher, 2001) or 'being' (Duchscher, 2008) stage of transition the newly qualified nurses started to separate themselves from having been a nursing student. They did this by letting go of some of the ideals they had held as nursing students. This enabled them to start identifying who they were as qualified nurses and feeling more equal with their medical and nursing colleagues. There was a notable expansion in their knowledge, skills and ability to think critically, as well as becoming more comfortable with their roles and responsibilities. At this stage, the newly qualified nurses became more focused outside of themselves, viewing their patients more holistically and nursing in broader terms than just

efficiently completing tasks. The focus of having to ask colleagues for help was now to get clarification and confirmation for their clinical judgements.

At the final stage of development, 'being a nurse' (Duchscher, 2001) or 'knowing' (Duchscher, 2008), the newly qualified nurses had developed a sense of self-determination and were less likely to compromise their practice values and ideals in order to fit in and maintain the status quo. They had achieved independence in their practice, being able to think critically and judge, as well as prioritise their workload. They viewed themselves as nurses with an ability to contribute and be part of the team. They were able to answer questions, rather than only ask them and they were able to help others. They had gained experience and were starting to broaden their knowledge and understanding coupled with meaning. They were no longer just doing, but considering the quality of their nursing care.

The results of Duchscher's (2001) stages of transition suggested that newly qualified nurses moved through the stages of transition in approximately five months. This finding was limited by the sample consisting of only five newly qualified nurses. The stages of transition in the larger study by Duchscher (2008) spanned twelve months; a time frame that has more empirical support in the literature (Casey *et al.* 2004; Andersson and Edberg, 2010). A strength of the method deployed in the Duchscher (2008) study was the frequency with which data were collected. It enabled a greater likelihood of accuracy in timing and illuminating the nuances of transition almost month by month. Overall, there are similarities in the origin and experiences of 'transition shock' and 'reality shock', though there is more empirical evidence for the concept of 'transition shock'.

Within the literature, Benner's (1984) different levels of competence have been applied to research investigating the transition of newly qualified nurses (Ellerton and Gregor, 2003; Duchscher, 2008; Andersson and Edberg, 2010). Benner (1984) drew heavily from and used the same five levels identified in the Dreyfus Model of skill acquisition and development, summarised in Dreyfus (2004). The aim of her research was to determine the applicability of the Dreyfus Model to nursing competency (Benner, 1984). The five levels of competency were in ascending order: 'novice', 'advanced beginner', 'competent', 'proficient', and 'expert'. The method

Benner (1984) deployed was to pair a preceptor (regarded and referred to as an 'expert' nurse) with a newly qualified nurse (n= 21 pairs) and separately interview each about the same clinical situation that had stood out to them for any reason to determine differences in the knowledge they applied, as well as any other differences. These pairings were derived from three American hospitals. In addition, fifty-one experienced nurses, eleven newly qualified nurses and five senior nursing students were interviewed and/or observed. This sample was taken from six American hospitals. The experienced nurses were selected by their Staff Development Director. The nurses had to have experience totalling at least five years and be involved in direct patient care at the time of data collection. They also had to be recognised as highly skilled, presumably by the Staff Development Director who selected them. Furthermore, there was also a series of four interviews each lasting two hours with experienced nurses, though it was not clear if these experienced nurses were part of the original fifty-one experienced nurses or why serial interviews were necessary.

Applying interpretive Heideggerian phenomenology, Benner (1984) illustrated the skill acquisition and competency of nurses for each of the five levels. Most pertinent to the current study, Benner (1984) described the 'novice' as a nursing student who had no prior experience to draw on in situations in which they needed to perform and thus applied rules and formulaic approaches to their nursing practice. They also had little understanding of the contextual meaning within situations. The 'advanced beginner' was where most newly qualified nurses would be situated, according to Benner (1984). Benner (1984, p. 22-24) described nurses at this level of competence as able to "*demonstrate marginally acceptable performance*". They had some experience and would be able to determine some degree of understanding of the situational components occurring within a workplace event. The 'competent' nurse was likely to have been in practice, probably within the same job location or speciality, for two to three years. They would have a personal sense of mastery and ability to cope with different situations (Benner, 1984).

Benner (1984) did not regard the five levels of competence as a one directional linear progression. Crucial to competence was experience and this was most likely gained with the same type of client group. A nurse could be an 'expert' with this type of

consistent and prolonged experience, but could be an ‘advanced beginner’ or less if placed in a situation where they had limited experience. This notion could be applied to newly qualified nurses. Newly qualified nurses may well be regarded as ‘advanced beginners’, but if their first nursing job was in an unfamiliar speciality they may actually have a competence level more akin to a ‘novice’. However, this view of how expertise can be diminished does not take into account that expertise in nursing practice includes diverse, subtle skills and knowledge that develop such as being able to identify and pass on small, but crucial patient details that those with less expertise would not pick up on (Hardy *et al.* 2002). Arguably such expertise is sustainable despite a lack of experience with a particular client group.

2.2 Stress

The transactional cognitive appraisal theory of stress by Lazarus and Folkman (1984) has proved both influential (Bennett *et al.* 2001) and durable (Furnham, 2005) since its original inception and was used in the current study. Furthermore, their theory has previously informed studies with qualified nurses and nursing students (Brown and Edelman, 2000; Healy and McKay, 2000; Bennett *et al.* 2001; Gellis, 2002; Bianchi, 2004; Chang *et al.* 2006; Prymachuk and Richards, 2007; Gibbons, Dempster and Mountray, 2009; Burgess, Irvine and Wallymahmed, 2010), though it is not always overtly evident in the discussion of the research results.

Preceding psychological stress, a stressor is required in order to appraise something as stressful. Antonosky (1979, p. 72) argued that a stressor was an internal or external stimulus that upset homeostasis and required a non-automatic response, as opposed to a routine stimulus that generated an automatic response and “*poses no problem in adjustment*”. Central to the cognitive appraisal theory of stress is a person’s own appraisal or evaluation of why and to what extent their interaction with their environment is regarded as stressful. This is evident in how Lazarus and Folkman (1984) defined stress:

“Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being.”

(Lazarus and Folkman, 1984, p. 19)

From their conceptualisation of stress, they immediately questioned what mediated the relationship a person had to their environment and subsequently proposed two processes: ‘cognitive appraisal’ and ‘coping’ (Lazarus and Folkman, 1984, p. 19).

Lazarus and Folkman (1984) defined cognitive appraisal as:

“...an evaluative process that determines why and to what extent a particular transaction or series of transactions between the person and the environment is stressful.” (Lazarus and Folkman, 1984, p. 19)

Lazarus and Folkman (1984) defined coping as:

“...the process through which the individual manages the demands of the person-environment relationship that are appraised as stressful and the emotions they generate.” (Lazarus and Folkman, 1984, p. 19)

However, Lazarus and Folkman (1984) rather confusingly provided a second definition of coping, which is provided in Section 2.3 which, while resonating with the above definition, removed the reference to stress and focused more on a person’s coping resources.

Lazarus and Folkman (1984) referred to primary and secondary appraisal in their theoretical examination of stress, but did not explicitly apply primary appraisal as cognitive appraisal and secondary appraisal as coping, though they strongly implied the associations. Lazarus and Folkman (1984, p. 32) identified three types of primary appraisal: ‘irrelevant’, ‘benign-positive’, and ‘stressful’. In ‘irrelevant’ appraisals, there was no benefit or loss, no intervention needed from the transaction. In ‘benign-positive’ appraisals, the situation was viewed positively and characterised by positive responses such as joy, happiness and peacefulness. ‘Stressful’ appraisals could take the form of harm/loss, threat or challenge. While harm/loss and threat were characterised by negative emotional responses such as fear, anxiety and anger, challenge responses were more positive because they constituted growth and personal gain and were characterised by eagerness and excitement (Lazarus and Folkman, 1984). Individuals who were more likely to appraise situations as a

challenge were more likely to have better morale, general ability to function and health compared to those more disposed to appraise situations as a threat (Lazarus and Folkman, 1984).

It was interesting that Lazarus and Folkman (1984) should identify how some people naturally regarded situations as a challenge as this was also one of the characteristics of hardiness proposed by Kobasa (1979), which is discussed in Section 2.5. Lazarus and Folkman (1984) made reference to taking “*into account characteristics of the person*” (Lazarus and Folkman, 1984, p. 21) and “*the factors that affect the nature of their mediation*” within a person’s cognitive appraisal of their environment (Lazarus and Folkman, 1984, p. 23). This suggests individual traits could not be ignored, but Lazarus and Folkman (1984) did not make the connection between individual hardiness and its mediating effect on stress appraisal. Kobasa, Maddi and Kahn (1982) were of the opinion that personality traits influenced cognitive appraisal, but ultimately shied away from naming hardiness as an influential trait. This was potentially because they regarded hardiness as a resistance resource in keeping with Antonovsky’s (1979) alternative theoretical perspective of stress and health.

For Lazarus and Folkman (1984), primary appraisal was akin to a person appraising what was at stake for them in an encounter, whereas secondary appraisal was the consideration of what could be done about the situation in terms of the coping strategies they needed to deploy. Coping in the context of secondary appraisal is discussed in greater depth in Section 2.3. However, it is acknowledged in this section because it is fundamental to the theory of stress proposed by Lazarus and Folkman (1984). By referring to primary and secondary appraisal it could be interpreted that one type of appraisal came before the other, but this was unintended as both types of appraisal were regarded as interacting to determine how much stress the person felt and their emotional reaction to an encounter (Lazarus and Folkman, 1984). However, intuitively primary appraisal would seem more likely to occur before secondary appraisal in most situations as a person could only select a coping strategy once the situation had been appraised as harm/loss, threat or challenge.

2.3 Coping

Lazarus and Folkman (1984) felt that secondary appraisal was an important element of any stressful situation because it was an evaluative process of what could be done about the situation. Coping was central to secondary appraisal, but in keeping with their concept of cognitive appraisal it was much broader than what coping strategy to use. It also encompassed if the coping strategy was achievable, likely to be effective and if there could be any consequences to its deployment. This broad view of coping is not entirely reflected in the definition of coping Lazarus and Folkman (1984) provided:

“We define coping as constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.”

(Lazarus and Folkman, 1984, p. 141)

Pertinent to discuss is whether coping is a process or a trait as it influences how coping is both conceptualised and measured. For Lazarus and Folkman (1984), coping required effort and purpose; there was nothing automated about coping. If a way of ‘coping’ with a situation was automatic, it was not ‘coping’. Therefore, for Lazarus and Folkman (1984), coping was a process, which stemmed from how the person appraised an environmental situation and how their coping changed as the situation changed (reappraisal). If coping was a trait it would mean that every time a person encountered a similar situation they would respond in the same way; for example, if a person responded to being threatened by avoidance then every time they were threatened, they would robotically respond by avoiding (Lazarus and Folkman, 1984). However, this view lacks acknowledgement that primary appraisal might still have happened and that a person’s trait or disposition might be that when a person appraises a situation as threatening their active response is to avoid. This view also does not acknowledge the potential effect that personality dispositions may have on how a person copes (Kobasa, Maddi and Courington, 1981; Carver, Scheier and Weintraub, 1989). Moreover, it might be that coping has both elements of process and trait. It might be a person’s trait to process their coping in similar ways, given similar stressful situations. While Lazarus and Folkman (1984) conceded that there were some stabilities and preferred coping strategies evident in people, they

made no reference to the possibility that trait and process could both be elements of coping.

Lazarus (1993) criticised viewing coping as a trait because it meant that it had to be measured by asking what the person usually did in a situation, rather than regarding each situation as unique and thus asking what the person actually did in a specific situation. To ask what a person specifically did was more likely to elicit a more accurate range of coping strategies because they were recalling a real event, rather than a person guessing as to what they would usually do from a composite of memories and situations (Lazarus, 1993). However, Carver and Scheier (1994) tested a range of coping strategies from a dispositional and a situational stance using the same questionnaire, modified only to use the required language ('usually' or 'did') on the same sample. There was very little difference between the two sets of results suggesting, certainly in terms of data collection on coping strategies, a dispositional or a situational tool would produce similar results.

Lazarus and Folkman (1984) made a clear distinction between coping function and coping outcome. Coping function was the reason for utilising a strategy, whereas coping outcome was the effect the strategy had. Lazarus and Folkman (1984, p. 150) stated for them it was "*of overriding importance*" that it was a function of coping when a person aimed to manage or change a problem that was causing them stress; this was problem-focused coping. When the function of coping was to manage their emotional response to a problem that was causing them stress, often because it had been appraised that nothing could be done to change the situation; this was emotion-focused coping. Examples of emotion-focused coping are: when a person makes themselves feel even worse through self-blame and self-punishment but this spurs them to actively do something to feel better, a person reappraises a situation to be less stressful without actually changing the situation or ignores parts of the situation, and when a person uses an activity such as exercise to divert their attention away from the problem (Lazarus and Folkman, 1984).

The purpose of appraisal and coping as a process was adaptation to life stressors (Lazarus and Folkman, 1984). This would suggest that the effect the strategy had on the person, the coping outcome, was actually a judgement on how effective their

adaptation to the stressor had been. Furthermore, by regarding the function of coping as addressing a problem or addressing the emotions caused by an unchangeable problem based on how it was appraised, it was the outcome that rendered a function maladaptive, not the function itself. This is a crucial distinction because according to Lazarus and Folkman (1984) and Lazarus (1993), problem-focused coping was not better or more desirable than emotion-focused coping; even denial could be an effective coping outcome in appropriate circumstances. However, the preference for problem-focused coping and the negativity associated with emotion-focused coping is frequently evident in the literature (Lazarus, 1993; Frydenberg *et al.* 2004).

2.4 Social support

Social support has been regarded as a coping strategy (Carver, Scheier and Weintraub, 1989), but for Lazarus and Folkman (1984) while it was part of the process of coping, it was not a coping strategy, it was a coping resource. A person has a range of potential resources they can utilise as part of the strategies they deploy to respond to a stressful situation that has been appraised in the primary stage as harm/loss, threat or challenge.

Social support has two distinct strands. There are the people that are utilised as a resource to manage a stressful situation and there are the reasons that these people are utilised (Cohen and Wills, 1985). The former, Lazarus and Folkman (1984) referred to as a social network, though it has similarly been referred to as structural social support (Cohen and Wills, 1985; Sherbourne and Stewart, 1991). The latter was actually what Lazarus and Folkman (1984) regarded as social support, which has also been termed functional social support (Cohen and Wills, 1985; Sherbourne and Stewart, 1991).

Structural and functional social support were critical, but distinct, aspects of secondary appraisal. A person may have a large social network, but that does not indicate what they may derive from it. The presence of a person in someone's network may not be a source of support (Sherbourne and Stewart, 1991). Indeed, Lazarus and Folkman (1984, p. 248) stated that some aspects of a social network

“comprise a significant share... of the sources of stress in life”. Likewise, a research study might show that the larger the number of people in a person’s social network, the less perceived stress is reported. However, nothing is revealed in this negative correlation of the process that occurred to derive such an outcome (Lazarus and Folkman, 1984). Therefore, while functional social support was not a process, it was *“the perception of the value of social interactions... as it is sensed and appraised by the person”* (Lazarus and Folkman, 1984, p. 246-247).

From a literature review to formulate a functional social support questionnaire, Sherbourne and Stewart (1991) identified five types of support that people can gain from their network. ‘Emotional support’ involved empathy, understanding and encouragement. Carver, Scheier and Weintraub (1989) termed this ‘use of emotional support’ in their COPE Inventory of coping strategies. ‘Informational support’ was when someone accessed advice, information, guidance or feedback. Carver, Scheier and Weintraub (1989) termed this ‘use of instrumental support’ in the COPE Inventory. ‘Tangible support’ was receiving something material from another person such as a gift, or someone helping another person such as when they were ill. ‘Positive social interaction’ was having someone to do something nice with and ‘affectionate support’ was being involved in expressions of love and affection. Kobasa, Maddi and Kahn (1982) speculated that hardiness may influence how a person may utilise available social support. However, for Lazarus and Folkman (1984), social support, presumably in both its structural and functional forms, was a coping resource that had to be nurtured and utilised as part of the process of appraisal and adaption to stress.

2.5 Hardiness

The concept of hardiness was first proposed by Kobasa (1979) and has not changed since this original work, despite receiving considerable research attention (Eschleman, Bowling and Alarcon, 2010). Kobasa (1979) speculated about whether personality was a factor in stress-induced illness and why some people who appear to have very stressful lives do not get ill, given that the link between stress and illness was already recognised. Hardiness in this context was specifically about dealing

with life events that were regarded as stressful (Kobasa, Maddi and Courington, 1981). Kobasa (1979) did not provide an overarching definition of hardiness, instead hypothesising that it could be understood through its three constituent parts: 'control', 'commitment' and 'challenge'. A lack of hardiness definition still appears evident in the literature.

'Control' hardiness is evident when a person feels they have control over what happened in their life. Within this they feel that they have the ability to control decisions that are needed to manage stressful situations, drawing on cognitive abilities and a wide range of coping strategies. For a person low in 'control' hardiness, they feel powerless to control stressful situations, possibly coupled with a lack of motivation and a feeling that life has little meaning (Kobasa, 1979).

'Commitment' hardiness is evident when a person feels committed to their purpose and themselves despite stressful situations. The committed person continues to interact and utilise assistance from others (Kobasa, 1979). Finally, 'challenge' hardiness is evident when a person feels that change is a positive part of life and thus the challenge of change is viewed positively. A person high in 'challenge' hardiness is likely to have the cognitive flexibility to adapt and embrace changes and challenges, though this is not the same as a person who actively seeks thrills and dangerous challenges (Kobasa, 1979).

To test the three hypothesised constituents of hardiness, Kobasa (1979) compared high stress/low illness people with high stress/high illness people to determine if the former group were hardy and the latter group were not. In order to recruit a sample of 'stressed' people a large sample of upper and middle level executives from one American company were sent a questionnaire on stressful life events and their illnesses, and asked to complete it considering their last three year history. The respondents that matched the required profiles were retained, but not the very few women that would have been eligible. The final sample consisted of seventy-five high stress/high illness and eight-six high stress/low illness men, who then undertook the next phase of the research.

The second phase of data collection consisted of a large package of questionnaires administered to all participants on one occasion. Both the stressful life events and

illness history questionnaires were modifications from what had originally been published by other authors, but the only action taken to establish new validity and reliability was a pilot study. No other details or data were provided. Additionally, to test 'control' hardiness, four pre-existing scales were utilised that were theoretically related to control; for example, a locus of control scale. 'Commitment' hardiness was measured by using three pre-existing theoretically related scales; for example, an alienation scale. 'Challenge' hardiness was measured by using six pre-existing theoretically related scales; for example, a security orientation scale. For all the scales used to determine 'control', 'commitment' and 'challenge' hardiness, some were whole questionnaires, some were subscales of questionnaires and some were modified versions of either a subscale or a whole questionnaire. There was no suggestion that any of them were subjected to revalidation for use in Kobasa's (1979) research.

Using discriminant function analysis, the only significant results were that the high stress/low illness group showed low alienation, were more vigorous than vegetative, viewed their life as having meaning rather than was devoid of meaning and demonstrated an internal rather than external locus of control. Based on this very limited set of significant results, Kobasa (1979) boldly claimed that hardiness did exist in the form that was hypothesised and that the male executives that were high in stress and low in illness did demonstrate more 'control', 'commitment' and 'challenge' hardiness.

Kobasa (1979) noted that the final sample was solely male and predominantly had a minimum of a college degree, were Protestant and practicing their faith, were married with two children and their wife was a stay-at-home mother. This is not a diverse sample from which to safely generalise about hardiness and its relationship to stress and illness. Also, Kobasa (1979) measured lots of personality variables which were hypothesised to be characteristics of each of the three constituent parts of hardiness. However, Lazarus and Folkman (1984) criticised this method arguing that if a scale of alienation was used, it would determine if alienation was present. It could not be inferred that 'commitment' hardiness was present, because it was alienation that was measured. The same principle can be applied to many of the scales that were used in the research. Finally, it could not be determined what the

relative importance of each of the three constituent parts of hardiness was to the overall concept that a person was hardy. It could be that not all three constituent parts are actually pertinent to hardiness or that one is more dominant than the others in a hardy person. Kobasa, Maddi and Courington (1981) refuted this stating that all three were important to hardiness, but they did not present any empirical evidence to support their position.

Conceptually, though not actually raised by Lazarus and Folkman (1984), hardiness bears similarity to the theory of cognitive appraisal and coping. For example, 'control' hardiness bears similarity to problem-focused coping if it is at a high level in the individual, or an emotion-focused coping strategy such as 'mental disengagement' and 'behavioural disengagement', as termed by Carver, Scheier and Weintraub (1989), if present at a low level. Such similarities can be made for 'commitment' and 'challenge' hardiness as well. Therefore, is hardiness a personality trait or three types of coping strategy? Kobasa, Maddi and Courington (1981) went some way to acknowledging this similarity by suggesting hardiness was a "*personality style*" which encouraged transformational coping, which has been associated with cognitive appraisal.

Eschleman, Bowling and Alarcon (2010) took an entirely different view and speculated that the relationship between hardiness and stress might be that hardy people perceive the stressors they face differently. They suggested the influence of 'commitment' and 'challenge' may affect perception in people high in hardiness because the stressors are in keeping with their life goals for personal knowledge and development. Likewise, if a person's disposition is that they feel they have the ability to control many of the stressors they face, stressors may not escalate to become perceived as causing them stress. This demonstrated a conceptualisation of hardiness that was unrelated to coping. The different conceptualisations illustrate how hardiness remains a debateable personality trait (Eschleman, Bowling and Alarcon, 2010).

2.6 Resilience

Resilience first appeared in the literature as a consequence of asking how it was that some children clearly had a very challenging upbringing and yet went on to be well-adapted, functioning adults (Richardson, 2002). What was it about these children that enabled them to achieve this? The body of research this spawned was huge, but Richardson (2002) suggested what was demonstrated was that there were internal resilient qualities the children had and protective factors that surrounded them. These protective factors protected against adversity when it reoccurred, rather than facilitating normal development (Rutter, 1985). Moreover, fundamentally, in order to demonstrate resilience, adversity must first be experienced (Jackson, Firtko and Edenborough, 2007), though what constitutes adversity is broad, ranging from daily hassles to major life events (Fletcher and Sarkar, 2013).

For Bonanno (2004), resilience was about experiencing adversity and maintaining stability in physical and psychological functioning despite the adversity, which is what made resilience different from recovery. For other theorists, resilience was more than stability as it incorporated adaptation and personal growth, learning new strategies to self-protect and cope through navigating both the adversities and the opportunities encountered throughout life (Richardson *et al.* 1990; Richardson, 2002). It is the inclusion of adaptation that sets resilience apart from being regarded as a personality trait like hardiness (Richardson *et al.* 1990; Earvolino-Ramirez, 2007). Therefore, resilience in essence is a person's ability to bounce back from an adverse situation and to successfully adapt from it (Vaishnavi, Connor and Davidson, 2007; Fletcher and Sarkar, 2013). This is reflected in the definition of resilience provided by Luthar, Cicchetti and Becker (2000):

“a dynamic process encompassing positive adaptation within the context of significant adversity.” (Luthar, Cicchetti and Becker, 2000)

The ‘resiliency model’ was proposed to address how resilient qualities might develop in a person (Richardson *et al.* 1990) and has since become one of the most commonly used theories of resilience in the literature (Fletcher and Sarkar, 2013). The ‘resiliency model’ takes a linear direction through life (Richardson, 2002). A person, not necessarily a child, passes through stages of physical, mental and

spiritual (biopsychospiritual) homeostasis. Throughout life they interact with “*life prompts*”, which are not only adverse situations, but opportunities as well. This causes disruption to their biopsychospiritual homeostasis, part of which is how they viewed their world. At this point, they consciously and subconsciously mobilised resilient qualities and/or developed new ones leading to reintegration and biopsychospiritual homeostasis, or they do not reintegrate, do not regain biopsychospiritual homeostasis and maladaptation occurs (Richardson *et al.* 1990; Richardson, 2002). Richardson (2002) did not present any empirical evidence to support the proposed model of resilience.

There are parts of the ‘resiliency model’ that might be particularly pertinent to newly qualified nurses and their transition through their formative months post-qualifying. The model suggests that “*unprotected life prompts*” are the thoughts and feelings associated with situations that have either not been encountered before or have not resulted in personal growth when previously encountered. This means that the person does not have resilient facets to draw on for self-protection. In addition, disruptions represent change to the person’s world view (Richardson, 2002). Applying these ideas to newly qualified nurses, their world view abruptly changes on completion of their nurse education. Their world as a nursing student had become familiar, but the world of a qualified nurse has little familiarity. Applying the model, this would constitute disruption and multiple unprotected life prompts, which, according to Richardson (2002), requires the mobilisation of a lot of energy to foster reintegration and successful adaptation. This might be one reason why a lack of energy and associated symptoms has been reported in newly qualified nurses (Duchscher, 2008; Andersson and Edberg, 2010).

Richardson (2002) suggested that overall resilience was a metatheory that incorporated many other theories from a range of disciplines hence, not unexpectedly, parallels with the cognitive appraisal theory of stress by Lazarus and Folkman (1984) can be made. For Lazarus and Folkman (1984), when a stressor was appraised most severely as a threat, coping strategies were mobilised and coping resources utilised to generate successful adaption, or not as the case may be. Using the cognitive appraisal theory of stress, resilience can influence how a situation is appraised and what coping strategies are deployed (Fletcher and Sarkar, 2013). Even

exponents of resilience such as Rutter (1985) acknowledged the probable role cognitive appraisal had in explaining different individual reactions to the same situation.

Finally, according to Richardson (2002), resilience incorporates a moral framework. There is a strong sense of what is right and wrong and disruption to biopsychospiritual homeostasis could stem from this adverse situation. As will be discussed in greater detail in Section 3.2.4, newly qualified nurses have been shown to have high ideals (Maben, Latter and Macleod Clark, 2006), so the experience of disruption to this sense of what is right within professional nursing may both challenge their resilience, but also foster enhanced resilience.

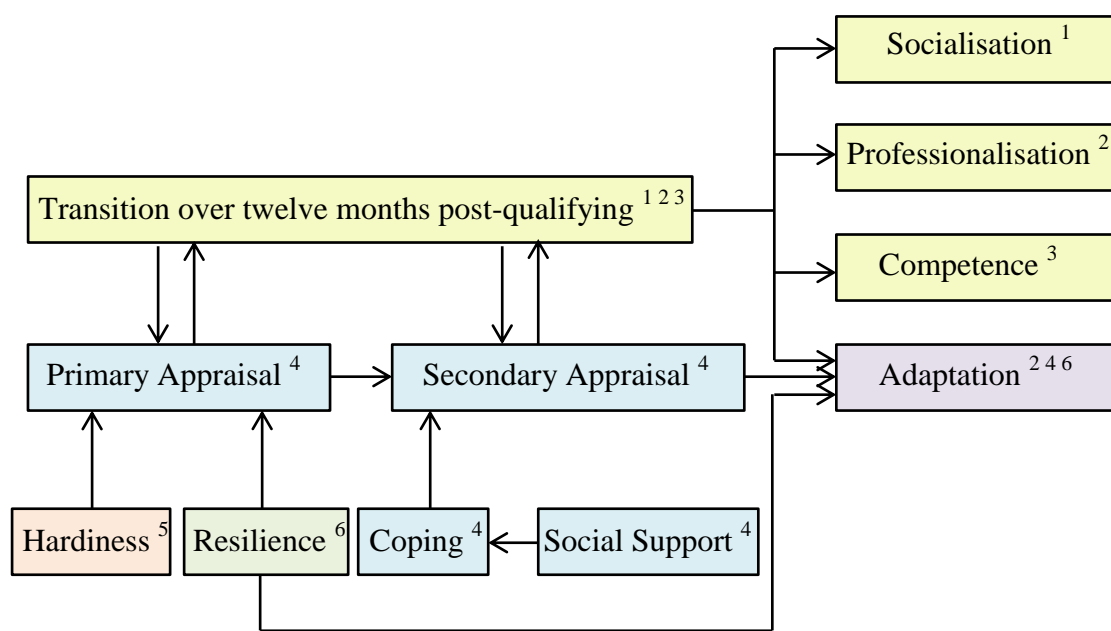
2.7 Model for this research

Figure 2.1 is a model showing the interconnectedness of the theories presented in this chapter that collectively framed this study with a focus on successful outcomes. The model shows how hardiness (Kobasa, 1979) and resilience (Richardson *et al.* 1990) have the potential to influence a newly qualified nurse's primary appraisal of a given situation (Lazarus and Folkman, 1984). From the cognitive appraisal of stress theory (Lazarus and Folkman, 1984), having appraised a situation as stressful, secondary appraisal ensues involving coping. As part of the deployment of coping, coping resources can be drawn upon, one of which is social support (Lazarus and Folkman, 1984). Theoretically, a successful outcome to the cognitive appraisal of stress and coping (Lazarus and Folkman, 1984) and the deployment of resilient characteristics (Richardson *et al.* 1990) is adaptation.

According to Lazarus and Folkman (1984), every time an interaction with the environment is appraised as stressful, this multifaceted process occurs. However, the other equally important strand to the model is transition over the first twelve months post-qualifying. The model suggests that transition, as experienced by a newly qualified nurse, affects both their primary and secondary appraisal of their work environment and vice versa. Theoretically, a successful outcome to transition, like the cognitive appraisal of stress and coping, is adaptation (Duchscher, 2009), but it is

also socialisation (Kramer, 1974), professionalisation (Duchscher, 2009) and competence (Benner, 1984). Therefore, there are two major strands to the model (transition and cognitive appraisal of stress and coping), both potentially mediated by four factors (coping, social support, hardiness and resilience) and there are four outcomes that indicate success (adaptation, socialisation, professionalisation and competence).

Figure 2.1 Model of successful newly qualified nurse transition, cognitive appraisal, hardiness and resilience



Theory:

1= Kramer (1974): ‘reality shock’, socialisation

2= Duchscher (2009): ‘transition shock’, professional role adaptation

3= Benner (1984): nursing competence development

4= Lazarus and Folkman (1984): cognitive appraisal of stress and coping including social support as a coping resource

5= Kobasa (1979): ‘control’, ‘commitment’ and ‘challenge’ hardiness

6= Richardson *et al.* (1990): ‘resiliency model’, adversity/adaptation

2.8 Chapter summary

This chapter has explored the theories that framed the current study culminating in a model that illustrates their interconnectedness. Newly qualified nurse transition has theoretically been proposed as ‘reality shock’ and ‘transition shock’. Central to ‘reality shock’ is the idea that newly qualified nurses enter a culturally-based state of shock when they leave the familiar professional system of nurse education and enter the unfamiliar bureaucratic system of a healthcare organisation. A four stage process of self-discovery ensues. ‘Transition shock’ encapsulated professional role adaptation for newly qualified nurses, expressed in emotional, socio-cultural and developmental, physical and intellectual ways, through a three stage process. Newly qualified nurse transition was also linked to a theory of developing competence and skill acquisition as a nurse potentially progresses from a ‘novice’ to an ‘expert’.

The cognitive appraisal of stress and coping theory is a key theory in this study because central to the theory is the relationship between a person and their environment making it relevant to an enquiry into newly qualified nurses and their place of work. The theory has two fundamental components. Primary appraisal is the appraisal of a given situation and secondary appraisal is the selection of coping strategies to mediate the perceived harm/loss, threat or challenge stemming from primary appraisal. Also, part of the theory is that people draw from a range of coping resources as part of the coping strategies they select to deploy. One of these resources is social support, though it has two distinct strands: who is in the social network and for what purpose they are utilised.

Lazarus and Folkman (1984) made reference to the importance of individual traits and characteristics as part of cognitive appraisal and coping with stress. This resonated with the concept of hardiness, which consists of ‘challenge’, ‘control’ and ‘commitment’ hardiness. Each of the components of hardiness bore similarity to how a person could appraise a situation. Finally, for Lazarus and Folkman (1984) the desired outcome of cognitive appraisal and coping is adaptation and personal growth. This resonated with resilience, which has two vital conceptual components: the experience of adversity through which positive adaptation can occur.

This chapter has presented the theories that framed this study. The next chapter critically reviews the empirical research that has investigated newly qualified nurse transition as well as stress, coping, social support, hardiness and resilience, all in relation to newly qualified nurses, qualified nurses and nursing students.

Chapter 3 - Literature Review

3.0 Introduction

The previous chapter presented the theories that underpinned the present study. This chapter focuses on the research related to each of the components of the study. The chapter commences with an overview of the strategy that was used to source literature. Next follows a critical review of the empirical literature on transition, nursing stress, coping, social support, hardiness and resilience. The focus throughout is on newly qualified nurses but, where relevant and pertinent, literature on qualified nurses and nursing students is also explored. The chapter concludes with the research aims and research questions that framed all subsequent parts of the investigation to address the apparent gap in knowledge determined from this literature review.

3.1 The literature review strategy

The term ‘newly qualified nurse’ is used throughout this thesis. However, these nurses are also referred to as a ‘new graduate nurse’, ‘newly registered graduate nurse’, ‘novice registered nurse’ and ‘neophyte nurse’ in the literature. As a result, all of these phrases were used as search terms. The period of time that immediately follows qualification as a registered nurse has been called ‘transition’, ‘transition shock’ and ‘reality shock’. ‘Transition’ and ‘reality shock’ were each used in combination with ‘newly qualified nurse’ and the associated phrases to source literature. Additionally, ‘newly qualified nurse’ and the associated phrases, nurse (nurs*) and nursing student (student nurse) were used in combination with stress (stress*, distress), coping (coping strateg*), social support (social network, structural social support, functional social support), hardiness (hard*) and resilience (resilien*). All of these combinations of phrases using Boolean operates were entered into the databases: CINAHL[®], British Nursing Index, MEDLINE[®], PsycINFO[®] and PsycARTICLES[®].

For all searches in the databases, English language and hardcopy full text availability were stipulated for practical reasons. A date restriction was imposed of no older than 1996 as at the time of commencing this research this date would have meant that the

research was already ten years old. With changes to nurse education and healthcare provider services both in the UK and internationally, research that was older than ten years was regarded as less likely to be able to meaningfully inform the development of this research. However, seminal work was excluded from this date restriction. From the literature identified and reviewed, the references that had been used were also reviewed and pertinent literature sourced for inclusion. The websites of the NMC, UK government and other UK agencies were accessed and relevant documents identified and included in the review of the literature.

The literature review strategy for this research and thesis had two phases. The first phase spanned literature up to and including 2010 as this period of time constituted the planning phase where the aims and research questions were determined based on the published knowledge of that time. A critical review of this phase of literature is presented in this chapter. The second phase spanned literature up to the end of May 2015. Literature from this second phase of searching was added to the first phase and enabled the background and results of this research to be put into the most contemporary context. A very limited amount of second phase literature has also been included in this chapter to highlight an enduring issue for newly qualified nurses.

3.2 Transition of the nursing student to qualified nurse

Synthesis of the literature suggested that transition for newly qualified nurses involved working within an alien culture, functioning within an organisation and a team, adapting to a new role coupled with personal development and managing the conflict with cherished ideals. Each of these elements will be considered in detail in this section of the literature review. To assist in comprehending the array of qualitative transition research, research that produced qualitatively-derived themes capturing aspects of newly qualified nurse transition encompassing these elements is summarised in Appendix 1.

3.2.1 Working in an alien culture

As outlined in Section 2.1, central to Kramer's (1974) theory of 'reality shock' is that nursing students are socialised into one system or subculture, but then leave that subculture to enter the new subculture of the workplace for which they have no socialisation. Quite how nursing students fail to gain any socialisation into this new subculture seems extraordinary when certainly modern UK nurse education requires nursing students to spend a minimum of 2,300 hours of their total nurse education in hospital, community or other related settings (NMC, 2010b). However, it would appear that nursing students think they know what to expect from nursing and performing as a qualified nurse because they saw it and were taught it, but the reality of their qualified experience can lead to disillusionment as Kelly (1998) and Maben, Latter and Macleod Clark (2007) found in their American and UK studies respectively.

From their Australian study, Kelly and Ahern (2009) found that at one month post-qualifying newly qualified nurses started to develop a new awareness of the cliques, language and behaviour of nurses that continued over their first six months post-qualifying. They learnt that nursing had a unique culture together with the existence of power games and hierarchy. Kelly and Ahern (2009) evidenced this by suggesting newly qualified nurses had to learn the 'language' of nursing. There was non-verbal communication like other nurses being silent towards them and verbal communication such as talking sharply to the newly qualified nurse and saying phrases like "*don't you know that*". However, this could actually be interpreted as newly qualified nurses having to learn and be socialised into managing and functioning within a culture that demonstrated incivility towards members. Kelly and Ahern (2009) also found that newly qualified nurses used the phrase "*eating their young*" to describe the behaviour of nurses towards them. The shock of this new culture came from no prior experience or awareness of its existence while they were nursing students, supporting the argument that newly qualified nurses are not suitably socialised into the healthcare culture they enter as newly qualified nurses.

3.2.2 Functioning within an organisation and a team

Maben, Latter and Macleod Clark (2006) conducted qualitative research using final year nursing students from three HEIs in the UK from 1997-2000 to determine what their practice ideals and values were as they entered the profession and how they may have changed at four to six months and eleven to fifteen months post-qualifying. They identified two types of sabotaging factors. The ‘professional sabotages’ were having to obey covert rules, a lack of support and poor nursing role models. The ‘organisational sabotages’ were time pressures, role constraints, a shortage of staff and work overload.

Despite the fact that this research was conducted over ten years ago using nursing students that are now educated using a different educational model and who entered healthcare provider organisations that have also evolved and changed over time, there remains support for the existence of these two sabotaging factors affecting the ability of newly qualified nurses to action or maintain their ideals and values. The covert rules identified by Maben, Latter and Macleod Clark (2006) were socialisation messages conveyed to newly qualified nurses that they should work quickly, not shirk work, not get involved with the patients, fit in with the team and not ‘rock the boat’. Bisholt (2012b) similarly found that Swedish newly qualified nurses had to learn “*hidden rules*” and that these rules were only revealed when the newly qualified nurse broke a rule. This was only determined through negative feedback and criticism. There are links between these unknown rules and Kramer’s (1974) idea of ‘interpersonal incompetency’ as part of ‘reality shock’. Kramer (1974) argued that when a newly qualified nurse entered the new subculture of the bureaucratic system they lost their ability to predict their interpersonal impact on others and vice versa. They lacked understanding of the new social system, the new rules that govern and as a consequence they had ‘interpersonal incompetency’.

Deppoliti (2008) investigated how American newly qualified nurses develop their professional identity and identified a theme: ‘the conflict of caring’. The newly qualified nurses described how shift work, the tasks they were assigned to undertake on a shift and not being expected to spend too much time talking to patients, which meant not getting close to patients, conflicted with how they had been educated to

care and their concept of what it was to care for patients. This resonates with the 'organisational sabotages' Maben, Latter and Macleod Clark (2006) identified and the impact it has on the practice ideals and values held by newly qualified nurses.

Newly qualified nurses wanted to be part of the team in their job location (Duchscher, 2009). Acceptance by the team was symbolic of approval by the team that they were competent practitioners (Andersson and Edberg, 2010) and met the expectations of the team (Price, 2009). Their fledgling skills meant that they could often feel like a burden to their team because of having to ask questions and ask for help (Duchscher, 2009; Romyn *et al.* 2009). Newly qualified nurses could identify in themselves that they worked at a slower speed compared to their more experienced colleagues (Duchscher, 2009), yet speed and efficiency were highly valued by the team (Maben, Latter and Macleod Clark, 2006), so speed was a benchmark by which newly qualified nurses could measure their performance (Kelly, 1998). They had under-developed abilities to think critically and make a judgement within their decision-making capabilities (Duchscher, 2001; Casey *et al.* 2004), manage their time effectively and prioritise their workload (O'Shea and Kelly, 2007; Andersson and Edberg, 2010). However, Duchscher (2009) and Andersson and Edberg (2010) discovered how the Canadian and Swedish newly qualified nurses in their respective studies would hide their insecurities from their team in order to try and fit in. This last issue resonated with 'protective isolation' identified by Kramer, though Kramer suggested that newly qualified nurses withdrew to colleagues that shared their ideals and values as part of the 'shock or rejection' stage of 'reality shock' (Kramer, 1974).

Newly qualified nurses perceived that their team expected a lot of them (Andersson and Edberg, 2010). These expectations were often beyond what was reasonable to expect of a nurse with such fledgling knowledge and experience. However, Clark and Holmes (2007) found in their UK study that ward managers had low expectations of newly qualified nurses and actually regarded them as akin to senior third year nursing students, rather than qualified nurses. Ward managers felt that newly qualified nurses needed time to learn to apply their knowledge and skills to the 'real world' of nursing.

The need to belong for nursing students can create a need to follow routines and practices in the workplace (Levett-Jones *et al.* 2007), though Benner (1984) argued that it was a characteristic of the ‘novice’ and ‘advanced beginner’ level of competency, typical of nursing students and newly qualified nurses. The safety in following workplace routines and practices was seen in newly qualified nurses. Newly qualified nurses wanted to develop their own routine (Riegel, 2013) and adversely responded when their routines were disrupted (Duchscher, 2001) or not fully established (Casey *et al.* 2004). Andersson and Edberg (2010) found that newly qualified nurses coped with the increased responsibility associated with their qualified status once they felt more in control. Control came once they had become familiar with routines and nursing practice. This resonates with Kelly’s (1998) final stage of newly qualified nurse adaptation where confidence in skills, control over situations and respect from the team were inherent within forming a new professional identity.

As part of their assimilation into their team newly qualified nurses had to learn their position in the workplace hierarchy (Kelly and Ahern, 2009), an apparently alien notion from when they had been nursing students. Interestingly, Mooney (2007) found that the Irish newly qualified nurses in their study identified themselves as higher in the hierarchy than they had been as nursing students. This would suggest they did have some concept of hierarchy and their place within it.

Communicating with members of the team was another difficulty identified for newly qualified nurses (Duchscher, 2009). Newly qualified nurses lacked experience as nursing students, particularly in communicating with doctors (Casey *et al.* 2004). Newly qualified nurses could feel intimidated and devalued when communicating with doctors and senior nurses (Duchscher, 2009).

In parallel with communication issues, another dimension to being assimilated into their team was that international newly qualified nurses have been found to encounter bullying (Chandler, 2012; Read and Laschinger, 2013; Laschinger and Nosko, 2015), horizontal violence (McKenna *et al.* 2003), incivility (Smith, Andrusyszyn and Laschinger, 2010; Bisholt, 2012a) or “*less than ideal communication*” (Dyess and Sherman, 2009). In a UK study of nursing students and

their experiences of bullying, they reported that they had encountered bullying from qualified nurses (Randle, 2003). Conversely, Kelly and Ahern (2009) found that encountering or noticing acts of incivility in the workplace appeared largely unfamiliar to Australian nursing students, though they did report that it occurred once they were qualified nurses.

3.2.3 Adapting to a new role and personal development

From their Australian study, Kelly and Ahern (2009) found that over their first six months post-qualifying newly qualified nurses felt that they were not prepared for the responsibility associated with making decisions that they now encountered. This was because they had not had similar responsibility as a nursing student. Kelly and Ahern (2009) suggested that this lack of preparation for the reality of their new role created internal role conflict. Maben, Latter and Macleod Clark (2007) reported that their UK newly qualified subjects highlighted how their patient care and learner roles from when they were a nursing student had decreased as newly qualified nurses. They were now less patient-focused and more managing and co-ordinating. This concerned the newly qualified nurses. Therefore, it is possible that the 'role conflict' Kelly and Ahern (2009) referred to was actually that the roles the newly qualified nurses now assumed were unexpectedly different from what had become familiar as a nursing student and also what they had aspired to perform when qualified status was achieved.

Duchscher (2001) identified how Canadian newly qualified nurses initially found the sudden weight of responsibility for patient care overwhelming. However, Bisholt (2012a) found that Swedish newly qualified nurses developed through taking responsibility for their actions and thus practicing their profession. This suggested that adaptation and personal development were factors for newly qualified nurses.

Confidence was an important factor for newly qualified nurses. According to Smith, Andrusyszyn and Laschinger (2010), the first three years for newly qualified nurses is a significant confidence-building time. Dyess and Sherman (2009) identified how American newly qualified nurses seemed to have a mixture of confidence and fear.

They had confidence in what they had learnt in their nurse education and their abilities, but they had fear about unknown patient situations. This finding resonated with Benner's (1984) characteristics of newly qualified nurses as 'advanced beginners' who had not yet developed a full understanding of patient situations due to a lack of experience. Clark and Holmes (2007) demonstrated a similar mixture as the newly qualified nurses in their UK study were anxious about completing a drug administration assessment, but then derived confidence from knowing they had passed it. This outcome implies the importance of feedback on performance in aiding both role adaptation and personal development.

Duchscher (2009) found that newly qualified nurses wanted feedback, whether it was praise or criticism, from senior colleagues or anyone they regarded as having an evaluative role in their development and progress. Similarly, from their community-based UK study, Maxwell *et al.* (2011) found that newly qualified nurses wanted more than just positive feedback. They wanted feedback that they could use to shape their future progress. This desire for feedback may also stem from when they were nursing students and what they had expected to get as newly qualified nurses (Deasy, Doody and Tuohy, 2011). Nursing students are critically assessed and receive feedback throughout their nurse education. If newly qualified nurses regard themselves as still learning and developing, just as they were as nursing students, feedback would remain crucial to them to aid their development and progress.

3.2.4 Managing the conflict with cherished ideals

From their longitudinal UK study in the late 1990s, Maben, Latter and Macleod Clark (2006) identified that nursing students qualified with three categories of ideals: 'patient-centred holistic care', 'high quality care', and 'theoretical knowledge and research evidenced care', but these ideals came entirely from their nurse education, not practice staff during placements. Re-examining the same sample via a repeat interview at eleven to fifteen months post-qualifying, Maben, Latter and Macleod Clark (2007) identified that there were three types of idealist within newly qualified nurses: 'sustained idealist', 'compromised idealists', and 'crushed idealists'. What determined the kind of idealist the newly qualified nurse was, was entirely down to

organisational factors such as the time pressures experienced, staffing levels and skill mix, availability of support, standard of role modelling, how individualised and holistic the patient care ethos of the job location was and the strength of the covert rules in operation.

Duchscher (2009) found that Canadian and Australian newly qualified nurses displayed and expressed overwhelming and often physically and emotionally debilitating levels of stress during the first four months of transition, which was frequently associated with not being able to exercise their professional values. They found it difficult to maintain the standards they had been taught to carry out and wanted to carry out. The newly qualified nurses felt frustrated and guilty about this and regarded themselves as contributing to substandard care practices. Price (2009) identified in a meta-synthesis of qualitative research on the early socialisation of nurses that the newly qualified nurse's commitment to nursing was influenced by their ability to cope with the dissonance between the ideals they held and the reality of nursing. This also resonated with the fundamental underpinning to 'reality shock' (Kramer, 1974). Disenchantment with their role as a qualified nurse occurred at least in part when the reality of their role conflicted with the ideals they held (Riegel, 2013). This could lead some newly qualified nurses to question and believe that what they had been taught as nursing students was unrealistic as Maben, Latter and Macleod Clark (2007) and Thrysoe *et al.* (2011) found in their respective UK and Danish studies.

3.2.5 The transition experience of UK newly qualified nurses

There has been very little literature published, even stretching back to the mid-1990s, examining the transition experience of UK newly qualified nurses (Higgins, Spencer and Kane, 2010). In critiquing the literature for this review, Maben, Latter and Macleod Clark (2006; 2007) have already been referred to extensively thus far in this chapter, but two additional studies were also identified for inclusion: Maben and Macleod Clark (1998) and Clark and Holmes (2007).

Maben and Macleod Clark (1998) conducted a small scale study on the experience of transition for UK newly qualified nurses who qualified as Project 2000 diploma nurses between December 1994 and January 1995. At the time of data collection, the ten participants in the study were each interviewed at six to eleven months post-qualifying. They found that the newly qualified nurses experienced extreme highs and lows, particularly in their first two to three months post-qualifying. They had a tendency to report the negative aspects of their transition experience typified by feelings of stress, terror, fear of litigation and extreme fatigue. However, there were many aspects of their role that brought them satisfaction and fulfilment not least their interactions with patients and those significant to the patient. A notable result was evidence of the impact of what could be regarded as incivility in the workplace. The newly qualified nurses encountered hostility from colleagues including doctors, which Maben and Macleod Clark (1998) attributed to the stigma associated with this new method of educating and preparing nurses that was both alien to doctors and threatening to other nurses. This outcome resonates with the professional-bureaucratic dissonance Kramer (1974) argued was a major cause of 'reality shock'.

Clark and Holmes (2007) conducted what appeared to be a larger scale qualitative study of how competence developed in newly qualified nurses. In total there were one hundred and five participants involved in focus groups and individual interviews. However, there was confusion in the presentation as to whether the sample consisted of thirty-five or fifty newly qualified nurses with the remainder of the sample consisting of experienced nurses, ward managers and Practice Development Nurses (PDNs). The newly qualified nurses were certainly under-represented overall, which meant that the findings for how competence developed was potentially more representative of how others perceived competence to develop in newly qualified nurses than how they themselves felt it developed. The sampling technique was arguably further compromised because some of the newly qualified nurses were progressing through a development programme, while others were solely working clinically. Having two subgroups of newly qualified nurses could have added an additional variable for how competence developed. The results of the research identified that the newly qualified nurses had knowledge, but struggled to apply it consistently to patient care, mirroring the competence descriptors of an 'advanced

beginner' (Benner, 1984). They also had issues with confidence initially and had a strong focus on acquiring and mastering skills.

The results from both of these studies are not dissimilar to the factors involved in transition as discussed in Sections 3.2.1-3.2.4. However, it is the lack of volume of empirical data from the UK that is striking. Additionally, the hostility that Maben and Macleod Clark (1998) identified towards newly qualified nurses that they postulated might be because of developments in nurse education may continue to affect the experience of transition in UK newly qualified nurses given the changes that have continued to occur in nurse education.

3.2.6 Synthesis of the newly qualified nurse transition literature

What has been demonstrated in this review of the literature thus far is that newly qualified nurses clearly experience a period of time, between completing their nurse education and being as well as feeling able to perform competently as a qualified nurse, that is unique to this subset of qualified nurses. Much of the research is international rather than using UK newly qualified nurses. This inevitably means that the newly qualified nurses that took part in these studies were educated differently, had different regulations for progressing to a full licence to practice as a qualified nurse (Deppoliti, 2008; McKenna and Newton, 2008), worked within different healthcare provider systems (Bowles and Candela, 2005) and participated in different programmes of orientation and support immediately post-qualifying (Thrysoe *et al.* 2011; Bisholt, 2012a). These differences are reflected in the research that investigated the experiences of newly qualified nurses making applicability to current UK newly qualified nurses problematic.

Of the very few studies that investigated the transition experience of UK newly qualified nurses, their applicability may be compromised by changes that have occurred in the demographics of students recruited to nurse education and changes to nurse education curricula (see Section 1.1). Limitations to applicability may also be as a consequence of changes to healthcare provision in the UK as healthcare settings are now highly complex as reflected in the contemporary role requirements of

qualified nurses (NMC, 2010b) coupled with a shortage of nurses (NHS Employers, 2014) that may increase workload and reduce available support, all of which may affect newly qualified nurses during their transition. Furthermore, there may be differences among UK newly qualified nurses given the slight variations that exist in preceptorship between England, Wales, Scotland and Northern Ireland (McCusker, 2013).

There were many weaknesses identified within the transition research. It was sometimes very difficult to ascertain how long the newly qualified nurse participants had been qualified (Clark and Holmes, 2007; Duchscher, 2001). Indeed the term 'newly qualified nurse' was applied to nurses that had been qualified for up to three years (Smith, Andrusyszyn and Laschinger, 2010; Laschinger *et al.* 2010). Much of the research involved small samples ranging from five to nine newly qualified nurses (Duchscher, 2001; McKenna and Newton, 2008; Andersson and Edberg, 2010), potentially unrepresentative samples due to the sampling approach (Maben and Macleod Clark, 1998; Ellerton and Gregor, 2003; Mooney, 2007; O'Shea and Kelly, 2007; Romyn *et al.* 2009) or because the demographics of the sample lacked diversity such as age range (Duchscher, 2001; Duchscher, 2008). Much of the research also lacked detail on the method employed (Duchscher, 2009), had research design weaknesses (McKenna *et al.* 2003; Casey *et al.* 2004), did not declare the approach to data analysis (Duchscher, 2008) or lacked a robust approach to data analysis (Ross and Clifford, 2002; Ellerton and Gregor, 2003; Dyess and Sherman, 2009). There were also incidences of themes that were unsubstantiated by the presentation of qualitative data (Clark and Holmes, 2007; Duchscher, 2008; Romyn *et al.* 2009). Furthermore, data were predominantly collected using interviews and/or focus groups (Kelly, 1998; Maben and Macleod Clark, 1998; Ellerton and Gregor, 2003; Clark and Holmes, 2007; Mooney, 2007; O'Shea and Kelly, 2007; Deppoliti, 2008; Duchscher, 2008; Kelly and Ahern, 2009; McKenna and Newton, 2008; Dyess and Sherman, 2009; Romyn *et al.* 2009; Andersson and Edberg, 2010). Alternative data collection strategies were rare, including within research involving UK newly qualified nurses (Higgins, Spencer and Kane, 2010).

Whether transition in newly qualified nurses is a process of socialisation into a new culture, professionalisation as they learn to perform as competent qualified nurses or

adaptation as they navigate changes in roles and responsibilities from when they were nursing students remains debatable. There is evidence to support the existence of all three processes. What the review of the literature does illustrate is that transition appears to be a tempestuous time for newly qualified nurses, but the overt, empirical link to stress is only implied in some of the research. This is because most of the research is qualitative and stress was not specifically investigated.

3.3 Stress and the newly qualified nurse

There were multiple examples in the predominantly qualitative newly qualified nurse transition literature where stress was referred to without supporting examples of dialogue to justify the issue truly having induced reported stress (Kelly, 1998; Maben and Macleod Clark, 1998; Kelly and Ahern, 2009; Duchscher, 2009). This may happen because the term ‘stress’ is used too easily (McVicar, 2003). An expanded example of this is O’Shea and Kelly (2007) who identified two themes from their qualitative data collected from ten Irish newly qualified nurses at six to seven months post-qualifying, one of which was ‘stressful aspects of the staff nurse role’.

Examining the evidence presented for this theme, no participant used the word ‘stress’ in the issues that were identified as stressful. This implies that the researchers had interpreted the issues as stressful for the participants, rather than the participants themselves having indicated that it had caused them stress. This was evidenced by the researchers identifying two “*obvious stressors*” for the participants: ‘dealing with death and dying’ because the participant had not encountered it as a nursing student, and ‘medications’ because participants were now having to give medications without supervision. An issue could be problematic for a participant without it causing them stress.

There was minimal literature where stress in newly qualified nurses had been explicitly investigated, but three studies were identified: Brunero, Cowan and Fairbrother (2008), Yeh and Yu (2009) and Chang and Hancock (2003). Brunero, Cowan and Fairbrother (2008) investigated the benefits of Cognitive Behavioural Therapy in reducing the sources and frequency of stressors, using the Nursing Stress Scale (NSS) in a pre/post intervention research design. The sample consisted of

n= 18 six months post-qualifying nurses, though further details such as where they worked and what country the research was conducted in was not presented. A vital missing detail was how the items on the questionnaire were scored. As presented in Section 4.4.1.1 (and was part of the communication received from one of the co-authors: see Appendix 2), Gray-Toft and Anderson (1981) changed the scoring system post-publication from 0-3 per item to 1-4 per item. By not presenting details of the scoring system they used their total stress score pre-intervention of 70.5 could have been on a scale range of 0-102 or 34-136, hence how stressed the participants were could not be accurately inferred. A similar limitation applied to the frequency of specific sources of stress pre-intervention. The small sample size also meant that the study was likely to be underpowered.

Yeh and Yu (2009) conducted a study with Taiwanese newly qualified nurses to investigate what their work-related stressors were during their first three months in post. Acknowledging that most questionnaires seek to identify sources of stress in qualified nurses, which do not account for the possible nuances associated with newly qualified nurses' stress, they designed their own newly qualified nurse stress questionnaire. They devised it from an initial literature review, a focus group with nine newly qualified nurses and interviews with Directors of Nursing and educators. They performed acceptable reliability and validity tests to generate a questionnaire that had twenty-four items, divided into four factors: 'tasks in general care', 'tasks in critical care' (akin to acute care in the UK), 'role/interpersonal relationships' and 'leadership/management'. Assessing the twenty-four items, there were two items that did not translate to UK applicability: 'using professional terminology in English' and 'lack of familiarity with charging fees'. Each item was rated on a five point Likert scale within which '2= slightly stressful' and '3= somewhat stressful'. Intuitively, it is questionable what the difference is between 'slightly' and 'somewhat'. Likewise, '4= very stressful' and '5= extremely stressful', the difference between 'very' and 'extremely' is also challenging to comprehend. Therefore, the Likert scale terminology might have compromised the results because interpretation of the scoring system may have been challenging or inconsistent within the sample.

The results of the Yeh and Yu (2009) research were that the highest rated stressors, rating between 'somewhat stressful' and 'very stressful' were: 'dealing with emergencies', 'caring for patients with unknown or infectious diseases', 'using professional terminology in English', 'dealing with death/dying', 'accurate reporting during shift changes', 'assessing conditions and changes in patients', 'administering medications' and 'operating equipment correctly'. Notwithstanding the method weaknesses and factors specific to Taiwan that were evident, this is one of the few quantitative studies in the literature that attempted to identify newly qualified nurse stressors. It identified from a full range of potential stressors what newly qualified nurse felt were their stressors without appearing more like a by-product of an investigation into their transition experience.

Chang and Hancock (2003) investigated role stress in terms of role ambiguity and role overload coupled with job satisfaction in $n = 154$ Australian nurses that were two to three months post-qualifying, repeated at ten to eleven months post-qualifying. The results showed that the participants were moderately stressed in terms of role ambiguity and role overload and this did not change over eleven months. At two to three months post-qualifying, role ambiguity was the predominant experience, with job satisfaction decreasing as role ambiguity increased. This negative correlation was still evident at ten to eleven months post-qualifying. However, role overload was the predominant experience at ten to eleven months post-qualifying, but it had no correlation with job satisfaction.

A weakness of the study was that role stress was simply determined from the five items in the role ambiguity section of the questionnaire ('too little authority', 'lack of clarity', 'lack of information', 'unable to influence others' and 'not knowing what is expected') and the three items in the role overload section ('no time to do everything', 'amount of work interferes with work' and 'no time to do the job'). It is a limited view of the stressors that potentially affected newly qualified nurses given the complexity of nursing work.

Given the volume of literature available on the transition experiences of newly qualified nurses, particularly from an international perspective, the lack of investigation into the stressors and stress experiences of newly qualified nurses is

surprising and underpinned the need for the current study. However, a newly qualified nurse is also a qualified nurse. Additionally, as transition commences it may initially share characteristics of a nursing student as well. Consequently, qualified nurse and nursing student stress literature was examined.

There is considerably more literature available pertaining to the stressors of qualified nurses and nursing students. Qualified nurses experience a broad range of workplace stressors. In their review of the literature, O'Henley, Curzio and Hunt (1997) found that the most frequent causes of nursing stress could be categorised as: 'work overload', 'organisations and management', 'interpersonal', 'communication', 'dealing with patients', 'death and dying', 'lack of support', 'home and work', 'staffing' and 'uncertainty and career'. In a later literature review, McVicar (2003) identified six sources of stress for qualified nurses: 'workload and inadequate staffing levels', 'conflict with other staff', 'leadership and management issues' including poor team cohesion and a lack of support, 'the personal cost of caring for others' including 'death and dying', 'shift work' and a 'lack of personal reward'. Despite the slight variation in categorisation, there is considerable overlap between these two literature reviews as might be expected illustrating the diversity of nursing stressors. Lim, Bogossian and Ahern (2010) also conducted a literature review identifying 'workload', 'workplace aggression', 'role change', 'role ambiguity' and 'shift work' as source of stress for Australian nurses only. While their categories were more limited, it did identify 'workplace aggression'. This was not as prominent in the earlier literature reviews, which might constitute a newer and developing stressor for nurses in the workplace as well as illustrate an emerging aspect of required professional socialisation.

'Workload' was identified in all the literature reviews cited. Furthermore, of all the stressors that have been identified for qualified nurses, research results often indicate that 'workload' is the highest rated stressor (Healy and McKay, 2000; Chang *et al.* 2006; Lambert *et al.* 2007). 'Death and dying' has also been rated very highly (Chang *et al.* 2006; O'Shea and Kelly, 2007; Lambert *et al.* 2007). The least stressful stressors were much more variable and were often not reported.

Gibbons, Dempster and Mountray (2008) thematically identified four sources of stress in UK nursing students: 'clinical placement experiences', 'levels and sources of support in the HEI', 'learning and teaching experience' and 'course structure'. From this research, Gibbons, Dempster and Mountray (2009) created a questionnaire and factor analysis refined the categories to 'learning and teaching', 'placement related' and 'course organisation'. A systematic review of the quantitative research up to 2010 on the sources of stress for nursing students irrespective of the country produced similar findings. The sources of stress were academic, clinical and curriculum (Pulido-Martos, Augusto-Landa and Lopez-Zafra, 2012), though financial issues was absent from the outcome of the review, but has been identified in other research (Jones and Johnston, 1997; Brown and Edelmann, 2000; Lo, 2002). However, Prymachuk and Richards (2007) in their UK study of nursing students found that the degree of distress in nursing students was comparable to any other university student. Their distress came from personal and extracurricular issues just like other university students. They suggested there was nothing exceptional or unique about nursing students. Therefore, while the sources of stress for qualified nurses had some resonance with the limited sources of stress known for newly qualified nurses such as patient care issues and workload issues, the sources of stress for nursing students appeared different and were likely to be limited to pre-registration.

3.4 Stress, coping strategies and the newly qualified nurse

There was no literature found that had specifically investigated coping strategies in newly qualified nurses. However, two studies were identified that investigated coping strategies as part of researching other issues. Brown and Edelmann (2000) conducted a comparative study of stressors, coping strategies and functional social support in pre and post-registration UK nurses. At Phase 1, their sample consisted of seventy-three nursing students that had just commenced their nurse education, twenty nursing students that had just completed the first eighteen months of their Project 2000 programme and were about to enter the final eighteen months of their adult nurse education, which was the system of educating nurses at the time, and sixteen nursing students that had just completed their Project 2000 three year nurse

education. At Phase 1, this sample completed a questionnaire of open-ended questions from which their actual and anticipated stressors, coping strategies and functional social support were determined using a grounded theory-based analysis procedure. This was transposed into a quantitative questionnaire that the same sample was given six months later (Phase 2).

Considering the coping strategies aspect of the research only, Brown and Edelmann (2000) identified eight coping strategies for Phase 2 investigation, which they labelled as either emotion-focused or problem-focused except 'having a mentor/preceptor', which they categorised as emotion-focused and problem-focused. However, their interpretation lacked theoretical rigour; for example, the coping strategy 'personal attitude' was categorised as emotion-focused and the coping strategy 'library and other resources' was categorised as problem-focused. At Phase 2, the number of Phase 1 participants that continued to be part of the research was smaller with only $n = 15$ six months post-qualified participants involved. Brown and Edelmann (2000) stated that the results showed that six months post-qualifying nurses used more emotion-focused coping strategies than nursing students. However, statistically the results were very weak. The sample size was very small and only response percentages along with ratios between nursing students and newly qualified nurses were presented. There were no inferential statistics presented to determine statistically significant differences between the groups to actually conclude that one group used more categorised strategies than the other. Furthermore, the coping strategies that the newly qualified nurses in particular had to choose from was potentially limited as they had not been determined from six months post-qualified nurses at Phase 1.

Chang and Hancock (2003) researched strategies to reduce role stress used by newly qualified nurses as part of a broader investigation into role stress and role ambiguity in Australian participants that were ten to eleven months post-qualifying. These strategies, which were akin to coping strategies, were derived from a fairly limited literature search that did not exclusively pertain to nursing. Eleven strategies were identified that were factor analysed into four factors: 'alternative activities to reduce stress', 'wait and see', 'deal with the problem' and 'negative activities'. It appeared that each strategy consisted of one item to test its use. The subscale devised by

Chang and Hancock (2003) appeared superficial when compared to other measures of coping such as the COPE Inventory (Carver, Scheier and Weintraub, 1989), which contained fifteen different coping strategies, each tested with four items paired as polar opposites to test presence and absence. Furthermore, participants were invited to indicate on a five point Likert scale how often they used the strategy ('never' to 'very often') and on another five point Likert scale, how effective they considered the strategy to be ('not at all effective' to 'very effective'). While the latter scale was an unacknowledged attempt to determine the coping outcome of a strategy, it requires considerable skill in self-assessment and theoretical knowledge of coping for an individual to be able to judge if their own coping strategy is effective.

The only results presented in Chang and Hancock's (2003) study related to the effectiveness of the strategy deployed. Simple statistics indicated 33% felt their strategy was effective and 60% thought it was moderately effective. No other data were presented on strategies to reduce role stress including any correlations with the role stress measures. Furthermore, data were collected from the same participants at two to three months post-qualifying, but at this time point they were not asked about their strategies to reduce stress. Comparison and analysis of change would have been possible if they had done this.

To further inform the current study, the literature on coping in qualified (adult) nurses and nursing students was reviewed. A large proportion of the research focuses on coping strategies and aspects of stress together. Coping and stress has been studied with international samples of qualified (adult) nurses (Healy and McKay, 2000; Gellis, 2002; Bianchi, 2004; Chang *et al.* 2006; Lambert *et al.* 2007; Li and Lambert, 2008) as well as UK nurses (Bennett *et al.* 2001; Burgess, Irvine and Wallymahmed, 2010). Likewise, coping and stress have been investigated with international samples of nursing students (Lo, 2002; Evans and Kelly, 2004) as well as UK nursing students (Jones and Johnston, 1997; Prymachuk and Richards, 2007).

While informative of how nurses cope with work-related stressors, international differences such as culture and healthcare systems may affect applicability to UK nurses in terms of the coping strategies and stress-related results identified. Nurse education differences and practice experiences both internationally and between

branches of nursing may also constitute important differences. These differences were identified in a large study by Prymachuk and Richards (2007) where mental health branch nurses had different sources and levels of stress and used different coping strategies compared to the three other branches of nursing in the UK. Although, as they noted as a limitation, their sample contained a disproportionate number of adult branch nurses.

Sometimes the research found for this literature review involved multiple regression analysis, so only predictive coping strategies were reported and not frequency data on all coping strategies investigated. Additionally, where coping strategies used in relation to work-related stressors were reported, they were measured using different quantitative questionnaires, so the terminology for different coping strategies makes comparison challenging. The coping strategies that were most frequently used by qualified nurses, as determined using the Ways of Coping Questionnaire were: 'planful problem-solving' (Healy and McKay, 2000; Chang *et al.* 2006; Lambert *et al.* 2007), 'self-control' (Healy and McKay, 2000; Chang *et al.* 2006; Lambert *et al.* 2007; Bianchi, 2004), 'seeking social support' (Healy and McKay, 2000; Chang *et al.* 2006; Bianchi, 2004) and 'positive reappraisal' (Lambert *et al.* 2007; Bianchi, 2004). Where the Brief COPE Inventory was used, which is a shorter version of the COPE Inventory (see Section 4.4.1.2), the coping strategies that were most frequently used were: 'action' (Bennett *et al.* 2001), 'planning' (Bennett *et al.* 2001; Li and Lambert, 2008), 'acceptance' (Bennett *et al.* 2001) and 'emotional social support' (Bennett *et al.* 2001). The least-used coping strategies were 'distancing' (Bianchi, 2004), 'accepting responsibility' (Bianchi, 2004) and 'escape/avoidance' (Healy and McKay, 2000; Bianchi, 2004) using the Ways of Coping Questionnaire, and 'substance use' and 'denial' using the Brief COPE Inventory (Bennett *et al.* 2001). Overall, these results show that nurses mostly use a mixture of problem-focused and emotion-focused coping strategies, while the least-used were emotion-focused strategies associated with an increased likelihood of being dysfunctional (Carver and Scheier, 1994).

There was considerably less reporting in the literature of the coping strategies used by nursing students. Prymachuk and Richards (2007) found that UK nursing students tended to use more 'task' rather than emotion-focused coping strategies.

Evans and Kelly (2004) determined that the most-used coping strategy by their small sample of Irish diploma nursing students was talking to friends, relatives and peers. Lo (2002) used an open-ended question to elicit what coping strategies their sample of Australian nursing students thought they used in relation to work-related stressors. They thematically identified three problem-focused coping strategies ('problem solving', 'recreation and sport' and 'seek social support') and one emotion-focused strategy ('tension reduction'). This limited literature suggests a mixture of coping strategies is used in relation to work-related stressors similar to those noted for qualified nurses, though possibly with a preponderance of problem-focused strategies. The implication of the qualified nurse and nursing student literature is that a similar mixture of strategies may be utilised by newly qualified nurses.

As coping and stress have been investigated together, correlation results were extracted that were indicative of their association, though by virtue of this statistical test, cause and effect cannot be interpreted from significant results (Field, 2009). Gellis (2002) investigated the job stress and coping strategies for American hospital nurses (n= 151) and hospital-based social workers (n= 168). Extracting the results that pertained to nurses: 'avoidance' coping positively correlated with job stress and 'active problem-solving' coping negatively correlated with job stress. 'Problem-reappraisal' coping was not associated with job stress. The result suggests that there is an encouraging association between the perception of job stress and the use of problem-focused coping strategies, though this study was compromised by the limited range of coping strategies within the questionnaire that was used. In Australian nursing students, Lo (2002) found that the higher the level of chronic and transient stress, the more avoidance coping strategies were used. Overall, both of these studies suggest that the use of avoidance coping strategies may be associated with high stress situations. These studies may also be an indication of the association that might exist between work-related stress and the use of certain coping strategies in newly qualified nurses.

The potential association between maladaptive coping strategies and increased stress has also been applied to predicting the implications for the health of nurses. Lambert *et al.* (2007) found in a large sample of Chinese hospital nurses that, in relation to work-related stressors, good physical and mental health was predicted by variables

that included ‘seeking social support’ as a coping strategy, while ‘confrontive’ coping predicted poor physical health and ‘escape-avoidance’ predicted poor mental health. This suggests that what coping strategies a nurse uses in stressful situations may have longer term implications for their health and well-being.

Finally, Lo (2002) was the only longitudinal study found that investigated coping strategies. They study determined the coping strategies of three different groups of nursing students with each group either in their first, second or third year of their three year nurse education programme. Despite this method, the change in coping strategies was not reported, and even if it had been, determining change in the same population of nursing students over three years would have added more value to the result as the risk of variance would have been smaller (Bowling, 2014; Scott and Mazhindu, 2014). Overall, no literature was found that reported on the stability or change in coping strategies that nurses use in relation to work-related stress.

3.5 Stress, social support and the newly qualified nurse

A source of literature that informs about social support in newly qualified nurses is the research that relates to transition. By virtue of the qualitative methods used, it provides insight into whom newly qualified nurses used for support, why they used the sources of support and what some of the outcomes of the support were. This was despite social support rarely being asked as a question during interviews/focus groups or featuring as one of the intended aims of the research.

The quantitative research into social support in qualified nurses and nursing students that was found also incorporated other variables such as stress, coping and job satisfaction (Bennett *et al.* 2001; AbuAlRub, Omari and AbuAlRub, 2009), anxiety and depression (Bennett *et al.* 2001), turnover intention (Beecroft, Dorey and Wenton, 2008), or was evident in the responses to an open-ended question within a quantitative questionnaire (Lo, 2002). Quantitative reference to social support was also derived from coping research as coping strategy questionnaires sometimes include a social support subscale such as the Ways of Coping Questionnaire and the COPE Inventory referred to in Section 4.4.1.2. The data provides insight into how

often social support was used, but it provides limited evidence of how social support is used because the subscales lack the complexity of a dedicated social support questionnaire. The diverse literature that has been outlined is reviewed in this section.

Examining the themes, sub-themes and the evidence provided within them from the transition literature provided insight into social support and newly qualified nurses. It was identified that the whole team that newly qualified nurses worked with could be a source of support if they felt that they were trusted and respected (Maben and Macleod Clark, 1998). When the newly qualified nurse had this kind of relationship with more experienced nurses, they reported a better transition experience (Romyn *et al.* 2009). Likewise, Duchscher (2009) found that some newly qualified nurses were able to overcome difficult moments during transition if they received verbal support from senior colleagues.

From their qualitative meta-synthesis of the early socialisation of nurses from systematically included qualitative research, Price (2009) identified mentors and role models as a major source of support, which could influence a newly qualified nurse's decision to remain in nursing. If a preceptor was constructively challenging, this was supportive because it fostered learning (Clark and Holmes, 2007). Conversely, Deppoliti (2008) found that a preceptor was negatively viewed by newly qualified nurses if they felt unsupported by the preceptor, if they felt like they were being tested purely to ascertain if they knew what they were talking about or to see if they would back down, or if the preceptor left them alone in a situation where they were not comfortable.

Maben, Latter and Macleod Clark (2006) noted the importance of role models as a source of support to UK newly qualified nurses suggesting that negative role models, in conjunction with minimal support, could hinder how newly qualified nurses were able to implement the values and ideals that they held. These were precipitating factors in whether the newly qualified nurse would go on to be a 'sustained idealist', 'compromised idealists' or 'crushed idealist' (see Section 3.2.4).

Little access to support in their workplace was negatively viewed by Canadian newly qualified nurses (Smith, Andrusyszyn and Laschinger, 2010). From their Australian study, Kelly and Ahern (2009) found that over their first six months post-qualifying newly qualified nurses used the phrase ‘thrown in at the deep end’. It, in part, linked to the behaviour of more experienced nurses who did not offer support (help and assistance) when they had tried to ask for it. ‘Feeling alone’ or being ‘on your own’ was associated with a lack of support in the job location (Maben and Macleod Clark, 1998). Feelings of isolation and self-doubt were also identified because newly qualified nurses no longer had access to the tutors and peers that had been sources of support when they were nursing students (Duchscher, 2009). However, from their evaluation of an American residency programme, Kowalski and Cross (2010) found that the most valuable aspect of monthly residency development days, as stated by the newly qualified nurses, was peer support: being able to talk and share with other newly qualified nurses and knowing others were going through the same experiences.

Newly qualified nurses wanted support during their transition to include being helped to process the emotions associated with some patient situations (Dyess and Sherman, 2009). Support also needed to be consistent (Casey *et al.* 2004). For newly qualified nurses that received support, their confidence improved, they coped better with work demands and they felt more satisfied with their work situation (Maben, Latter and Macleod Clark, 2006).

There was very limited literature found that pertained to whom nurses use for support outside of the transition literature. For newly qualified nurses, only one study was found, which contained a subgroup of participants that in the second phase of the research were six months post-qualified. This study by Brown and Edelmann (2000) was discussed in detail in Section 3.4. The fifteen participants at this stage of their research used ‘ward sister/charge nurse’, ‘partner’, ‘friends outside nursing’, ‘peers’ and ‘themselves’ as support resources, and did not use ‘mentor/preceptor’, ‘link tutor’, ‘academic tutor’ or ‘personal tutor’. While it is interesting that the participants did not use a ‘mentor/preceptor’ as a resource (suggesting they either did not have one or did not view this person as a coping resource) the other unused resources identified in the results were staff where the nursing students were

educated. This might imply that the newly qualified nurses had lost access to these staff as a resource once they qualified, which was the result noted by Duchscher (2009), except the results from the earlier phase of the Brown and Edelmann (2000) study showed the participants did not use HEI staff as a resource when they were still nursing students. This result was at odds with the other nursing students in Brown and Edelmann's (2000) study who did use HEI staff during their nurse education as a support, as well as clinically-based staff, friends and family. As well as the notable limitations discussed in Section 3.4 regarding Brown and Edelmann's (2000) study, a further limitation was that the participants did not appear to have the opportunity to add to the rather limited list of support resource options. If they had, a more extensive list may have been generated as to whom these newly qualified nurses accessed for support related to their work.

The only other study found to detail structural social support was by Lo (2002), which was also discussed in detail in Section 3.4. Lo (2002) determined, as an outcome of identifying social support as a coping strategy from one open-ended question, that nursing students used 'family', 'spouse or partner', 'workmates', 'classmates', 'lecturers' and 'tutors' as sources of support. A specific open-ended question about social support might have generated a more comprehensive list, though social support was not an aim of the study.

Co-workers, supervisors and the ward manager have been singled out in a few studies to determine if they were a source of support for the qualified nurses. AbuAlRub, Omari and AbuAlRub (2009) used the NSS, a satisfaction questionnaire and a social support questionnaire consisting of six items related to co-workers and six items related to supervisors, to determine the relationship between these variables. They found that as stress increased, nurses with high support from co-workers and supervisors had high job satisfaction, whereas when support was low from co-workers and supervisors, they had low job satisfaction. They used the total frequency of stressors from the NSS in their analyses, but they neglected to present the results for each of the seven subscales of sources of stress for nurses, such as 'workload' and 'death and dying'. This would have provided even greater insight into the relationships between the variables. Similarly, Bennett *et al.* (2001) found in their study of UK nurses (though it should be noted that their sample also contained

some ward managers and HCAs) a lack of support from the manager contributed to low job satisfaction, as well as anxiety and depression. These studies suggest that managers and co-workers may be a source of support for nurses as a result of which they can feel more satisfied with their job.

Investigations into coping strategies where a questionnaire containing a social support subscale has been used can determine to what extent social support is used. In this context, social support has been found to be a highly-used strategy in relation to work-related stress in nurses (Bennett *et al.* 2001; Healy and McKay, 2000; Chang *et al.* 2006). Furthermore, in their study of stress, coping, hardiness and health in n= 480 Chinese hospital nurses, Lambert *et al.* (2007) found that ‘seeking social support’ was one of a few variables that was predictive of good physical and mental health in nurses.

Overall, there was no literature found that was dedicated to determining the structural and functional social support of newly qualified nurses. Most quantitative data on social support was derived from coping questionnaire subscales rather than social support questionnaires. Most qualitative data were derived from investigations into the transition experiences of newly qualified nurses. However, the literature does provide insight into the potential importance of the workplace and the team the newly qualified nurses work with as an immediate source of support in relation to the stressors they face. It also suggests how diverse the social network might be for newly qualified nurses because it might include other newly qualified nurses as well as co-workers and their manager, but it may no longer contain the social networks they had used during their nurse education. The latter issue might potentially compound any feelings of isolation they may have.

3.6 Stress, hardiness and the newly qualified nurse

There was no literature found that had investigated the hardiness of newly qualified nurses. There was also very little literature found that had investigated hardiness in nursing students and qualified nurses. Hardiness has been investigated with samples such as military personnel (Bartone, 1999; Britt, Adler and Bartone, 2001;

Bartone, 2007), organisation and company employees (McCalister *et al.* 2006; Luszczynska and Cieslak, 2005), university staff (Klag and Bradley, 2004), college and university undergraduates (Pengilly and Dowd, 2000; Lifton *et al.* 2006; Hystad *et al.* 2009) and elderly American residents (Wallace, Bisconti and Bergeman, 2001). The outcomes of some of this research has been informative about the associations hardiness has with other variables; for example, McCalister *et al.* (2006) in their study of n= 1055 high-tech company and government agency workers found that hardiness and support from supervisor and co-workers predicted job stress, and all of these predicted job satisfaction. Such outcomes demonstrate the potential importance of hardiness, but generalising the results to nurses is questionable as the study population and work environment are markedly different.

Garrosa *et al.* (2008) investigated burnout, job stressors and hardiness in n= 473 Spanish nursing students (each of the three years of nurse education were represented in the sample) and qualified nurses. The method deployed was a single time point completion of the rarely used Nursing Burnout Scale consisting of a burnout subscale, job stressor subscale and hardiness subscale. The burnout subscale contains three further sub-subscales of ‘emotional exhaustion’, ‘depersonalisation’ and ‘lack of personal accomplishment’, drawing heavily from the similar Maslach Burnout Inventory (Maslach and Jackson, 1981). The job stressor subscale only consists of items related to ‘workload’, ‘interpersonal conflict’, ‘death and pain related to patients’ and ‘role ambiguity’, which is a limited view of the potential stressors in nursing. The hardiness subscale has seventeen items despite it producing values for the three components of hardiness. This implies there are an unequal number of items per hardiness component, which is a hardiness scale construction that has received criticism (Funk, 1992). This research might have been enhanced by using more established, separate questionnaires on the research concepts.

Garrosa *et al.* (2008) treated the sample as one entity despite consisting of qualified nurses and nursing students. The outcome of the research was that all three subscales of burnout were highly negatively correlated with ‘control’, ‘commitment’ and ‘challenge’ hardiness. This result was in slight contrast to later research that used the same questionnaire with n= 98 Portuguese nurses and found that ‘challenge’ and ‘control’ hardiness, but not ‘commitment’ hardiness, were associated with burnout

(Garrosa *et al.* 2010). With regard to the job stressors, Garrosa *et al.* (2008) identified that 'workload' and 'role ambiguity' were negatively associated with total hardiness, 'control' hardiness and 'commitment' hardiness. 'Death and pain related to patients' was positively associated with total hardiness and all three hardiness subscales. 'Conflict' was only negatively associated with 'control' hardiness. There was therefore varying degrees of association between how hardy a person was and different sources of work-related stress. However, an unacknowledged limitation of the Garrosa *et al.* (2008) study was the sample. There were effectively four subgroups to the sample, each potentially with different work stressors. Arguably, the stressors of a first year nursing student in hospital are unlikely to be similar to an experienced qualified nurse, but the sample was treated as one entity.

A few other studies have investigated hardiness and stress in nursing samples. Judkins, Reid and Furlow (2006) conducted a hardiness training programme with twelve American nurse managers and investigated change in their hardiness and stress pre and post-programme. They found that the hardiness of the nurse managers significantly increased post-programme, but their reported stress did not significantly change. This implies that hardiness is not associated with self-reported stress, but the very small sample and using a measure of general stress rather than nursing stress were limitations in generalising from this outcome. Rodney (2000) investigated Australian nurses who cared for aggressive patients with dementia in nursing homes and hostels, though the n= 102 sample also consisted of primary care assistants and direct care workers, with the number of nurses within the sample undeclared. The results showed no association between stress and total hardiness or each of its three consistent parts. Lambert *et al.* (2007) found in their large sample of Chinese hospital nurses that when faced with a high frequency of stressors (as measured using the NSS), total hardiness was one of the predictors of good physical and mental health.

Two studies were found where the hardiness of nursing students had been explored in conjunction with other variables. Hegge, Melcher and Williams (1999) investigated the hardiness and social support of n= 222 American nursing students, though no detail was provided as to how advanced they were in their nurse education. The Personal Views Survey was used to assess hardiness, though the

mean score reported for total hardiness and each of its three components could not be interpreted due to a lack of sufficient scale details or interpretive reference to the mean scores in discussing the results. The mean score for 'challenge' hardiness was lower than for 'control' and 'commitment' hardiness, but it was not reported if the difference was significant. The results also showed that there was no significant association between hardiness and a widely used measure of social support. Patton and Goldenberg (1999) compared levels of anxiety and hardiness in $n = 41$ first year American nursing students. The sample size was small, but showed that the nursing students had moderately high hardiness and there was a significant negative correlation between hardiness and anxiety. The nursing students that were high in hardiness, were low in anxiety.

The very limited amount of research that has been conducted with qualified nurses and nursing students is inconsistent in demonstrating associations between hardiness and variables such as stress, coping and social support. The research also has notable limitations such as sample size and the quality of reported results. There is a lack of longitudinal investigation of hardiness and, despite the suggestion that hardiness as a trait should show relatively stable measured levels (Cash and Gardner, 2011), no research was found to support or refute such a claim.

3.7 Stress, resilience and the newly qualified nurse

Some of the literature on transition in newly qualified nurses has undertones of resilience as successful adaptation has been linked to the passage of transition (Duchscher, 2009). Only one study was found that actually linked resilience to newly qualified nurses. Hodges, Keeley and Troyan (2008) claimed their qualitative study of eleven American baccalaureate nurses, who were up to eighteen months post-qualifying, was an investigation of their professional resilience. However, their three themes showed typical similarity to other qualitative studies of the transition experience of newly qualified nurses: 'learning the milieu' (nursing skills and culture), 'discerning fit' and 'moving through'. The small sample was not expressly asked about their resilience, thus the link Hodges, Keeley and Troyan (2008) made to

resilience was only empirically made through demonstrating adaptation within transition in their newly qualified nurse sample.

There was no literature found that quantitatively investigated resilience in newly qualified nurses. There was also minimal literature found that had investigated resilience in qualified nurses and none that had used nursing students. Gillespie *et al.* (2007) investigated what variables contributed to an explanation of resilience in $n=772$ Australian theatre nurses. They used the CD-RISC questionnaire to measure resilience (see Section 4.4.1.5). The sample had a mean score for resilience of 75.9 (SD= 11.0) (scale range 0-100) suggesting the nursing sample had a relatively high level of resilience. They further determined that five variables ('hope', 'self-efficacy', 'planful problem-solving' and 'competence and control') explained 60% of the variance in resilience, of which 'hope' made the strongest contribution. A limitation of their research was how coping was measured. Gillespie *et al.* (2007) only used one subscale of the Ways of Coping Questionnaire, which was 'planful problem-solving'. Other types of coping may have also been associated with resilience if the entire questionnaire has been used. Also, the sample was a specific subgroup of the Australian nursing workforce and while the large sample size made the results insightful about theatre nurses, generalising to the wider nursing workforce would be questionable. Furthermore, Gillespie *et al.* (2007) reported that age, experience, nurse education and years of employment were not statistically associated with resilience. However, using essentially the same sample, Gillespie, Chaboyer and Wallis (2009) demonstrated a significant, but weak association between age and resilience, as well as experience and resilience, but not nurse education and resilience. A regression analysis showed only years' of experience as a theatre nurse explained 3% of the variance in resilience. These somewhat contradictory outcomes make the association resilience may have with these demographic variables difficult to interpret.

Cameron and Brownie (2010) interviewed nine Australian elderly care qualified nurses to determine resilient attributes relevant to their personal management of work-related stress. The participants were given a definition of resilience in the hope that they would reflect on it before being asked in an interview two questions, both about managing stressful work situations. Each of the eight themes identified from

the analysis had resilience in the titles. However, inspection of the list of quotes said to illustrate all the themes made no direct reference to resilience. Ultimately, a similar criticism of Kobasa's (1979) method to measure the conceptualised three components of hardiness levelled by Lazarus and Folkman (1984) can be applied to the Cameron and Brownie (2010) method. Participants reported how they managed work-related stress, hence this is the outcome of the research. Knowledge of resilience is not generated because participants were not asked about their resilience despite an attempt to create a context effect.

Ablett and Jones's (2007) interviewed ten UK palliative care nurses working in a hospice to determine from their workplace experiences factors that promoted resilience and diminished the effects of stress. Their themed outcomes were then discussed in relation to theories of hardiness and 'sense of coherence', both of which are theoretically different to resilience. The resilient characteristics identified lacked trustworthiness given the lack of theoretical rigour.

There were a few studies that did not use any type of nurse as their sample, but their outcome might be informative in investigating resilience in newly qualified nurses because of the links found to the importance of social support and coping strategies. Hildon *et al.* (2008) used mixed methods to examine adversity and resilience in older people aged 70-80 years. Their results showed that maintaining stability when encountering adversity was what enabled participants to reduce the impact of the adversity. Stability came from accessing and utilising their support networks. They were able to talk to others for practical and emotion support and deploy positive coping strategies. It was a tried and tested formula for those high in resilience for managing adversity. It enabled the participants to continue doing what they usually did and maintain their established identity when they encountered a significant adversity. For the participants in this research, the adversities were most notably bereavement and ill health, thus different from the work-related stressors of newly qualified nurses, but it evidenced the potential importance of social support and coping strategies.

Studies using different samples of American university undergraduates showed that task-orientated coping was positively associated with resilience, while emotion-

orientated coping was associated with low levels of resilience (Campbell-Sills, Cohan and Stein, 2006) and that those high in resilience did not ignore a stressor, instead they were able to experience positive emotions as well as negative ones when faced with the stressor (Tugade and Fredrickson, 2004). The type of coping deployed by newly qualified nurses and their appraisal of stressors may have similar associations with resilience.

Overall, the lack of research that appears to have been conducted to investigate aspects of resilience in nurses means that little is known about how resilient nurses are and how that relates to managing or adapting to work-related stressors. Consequently, it is problematic to predict how resilient newly qualified nurses might be and how that affects their transition experience.

3.8 Research aims and research questions

Drawing from the literature that has been presented in this chapter, it was evident that exploring the transition of newly qualified adult branch nurses through the experience of the work-related stressors coupled with the stress-mediating potential of coping, social support, hardiness and resilience, had not been explicitly investigated before. Such an investigation would make an original contribution to knowledge, not least because the focus on stress-mediation (positive and negative factors mediating the stress experience) would be uniquely different from stress management as the application of consciously learnt techniques to manage stressful encounters or the implementation of strategies by organisations to reduce workforce stress (Richardson and Rothstein, 2008). Consequently, two aims and four research questions were formulated to frame the study.

3.8.1 Research aims

1. Investigate transition in newly qualified adult branch nurses through an exploration of their stress experiences
2. Explore newly qualified adult branch nurses' coping, social support, hardiness and resilience in relation to their stressors during transition

3.8.2 Research questions

1. What are the aspects of transition related to work stressors experienced by newly qualified adult branch nurses during the first twelve months post-qualifying?
2. What are the work-related stressors experienced by newly qualified adult branch nurses during the first twelve months post-qualifying?
3. What coping strategies and social support do newly qualified adult branch nurses use to manage work-related stress during the first twelve months post-qualifying?
4. To what extent do work-related stressors, coping strategies, social support, hardiness and resilience change in newly qualified adult branch nurses during their first twelve months post-qualifying?

3.9 Chapter summary

This chapter has shown through a comprehensive review of published literature that the transition experience of newly qualified nurses has repeatedly been qualitatively investigated over the last decade. Much has been discovered and discussed in this chapter pertaining to how newly qualified nurses feel about working in an alien culture, functioning within an organisation and a team, adapting to a new role coupled with personal development and managing the conflict with their own cherished ideals. However, much of the research is international, which inevitably means that the newly qualified nurses who took part in these studies were educated differently, worked within different healthcare provider systems and participated in different programmes of orientation and support immediately post-qualifying. These differences make applicability to UK newly qualified nurses problematic. Of the few studies that were conducted in the UK, changes in healthcare services, nursing student demographics and how nurses are educated pre-registration also compromise applying their findings to current UK newly qualified nurses.

Some newly qualified nurse transition literature implied that newly qualified nurses experienced work-related stressors resulting in personal stress. However, the determination of stress in this body of literature was not an intended aim, thus it is at best an inference from the results. There was considerably less research specifically aimed at identifying newly qualified nurse stressors, hence, little is comprehensively

known. The stressors for qualified nurses and nursing students have been more frequently investigated. The sources of stress for qualified nurses tended to be wide ranging with 'workload' and 'death and dying' frequently rated as highly stressful. The stressors for nursing students mostly appeared contained to pre-registration sources.

Minimal research was found that had investigated coping strategies and social support in newly qualified nurses. No research was found that investigated hardiness or resilience in newly qualified nurse. A small number of studies used qualified nurses and nursing students as the target population. The research into qualified nurses suggested that they used a mixture of problem-focused and emotion-focused coping strategies in relation to the stressors they experienced. Escape-avoidance strategies tended to be the least-used amongst nurses, but their use could be indicative of high stress. The full range of sources of support for qualified nurses was unknown, though there was some evidence that when high stress was reported, the ward manager, supervisors and co-workers were utilised as a source of support. Very little was known about how resilient nurses were and the research outcomes for hardiness in nurses were contradictory in part due to method weaknesses.

The review of the literature presented in this chapter has established that transition, stress, coping, social support, hardiness and resilience in newly qualified nurses has not been studied in combination before, thus the outcome of such an investigation would provide an original contribution to knowledge. Research aims and research questions were stated which reflected each component and the potential for change over time for transitioning newly qualified nurses. Having established this, a complex research strategy was planned, which was rooted in a pragmatic epistemology. The next chapter expands on this and presents exactly how the research was carried out.

Chapter 4 - Epistemology, methodology and method

4.0 Introduction

The previous chapter critically reviewed the published literature for each of the components of this research: newly qualified nurse transition, stress, coping, social support, hardiness and resilience. From this examination of the literature, research aims and questions were generated. This chapter moves forward into the design of a study to collect and analyse data to address the research aims and questions.

Epistemology determines the methodology which in turn determines the method with each of these important components mutually making each other visible (Carter and Little, 2007). It is for this reason that this chapter discusses each of these components: epistemology, methodology and method, demonstrating how each were actioned in this research and how they interlinked and informed each other.

This chapter is divided into three sections. The first section addresses the epistemology of this research: pragmatism. Pragmatism and pragmatists differ significantly from its inception and initial popularity in the late nineteenth century/early twentieth century (classic pragmatism) to its re-emergence and reinterpretation in the 1970s (McCready, 2010; Hammond and Wellington, 2013). The form of pragmatism that was applied in this research was that espoused by the classical pragmatists: Charles S. Peirce (1839–1914) and William James (1842–1910). The first section provides an overview of the key features of pragmatism as they proposed it and explains how pragmatism was applied in this research. The second section discusses the methodology applied in this research: mixed methods. A discussion is presented on the type of mixed methods adopted, justifying why it was selected, making links to pragmatism and explaining how it was applied in this study with specific reference to quality assurance. The final section presents in detail the method deployed to carry out this study.

4.1 Epistemology

Charles S. Peirce was credited by William James as the founder of pragmatism (Menand, 1997), though the latter significantly developed the philosophy. Peirce, in

his philosophising about logic, ideas, beliefs and reality, included the notion of practical consequences (Peirce, 1997/1878). James (1997a/1907) expanded on the meaning of pragmatism describing it as “*the pragmatic method*”, a method of resolving metaphysical disputes, but ‘practical consequences’ remained evident.

“The pragmatic method in such cases is to try to interpret each notion by tracing its respective practical consequences. What difference would it practically make to anyone if this notion rather than that notion were true?”

(James, 1997a/1907, p. 94)

In the modern context, ‘practical consequences’ remains a key element of pragmatism. However, it has evolved into “...*a practical orientation to a problem and finds a solution that is fit for a particular context*” (Hammond and Wellington, 2013, p. 125). There is therefore the idea of problem/solution inherent within today’s pragmatically-framed research, but it implies a sense of conclusion to a problem, which is somewhat at odds with the classical pragmatists. James felt that by following the pragmatic method the aim was not to look for conclusion, “... *you cannot look on any such word as closing your quest.*” (James, 1997a/1907, p. 97). Instead, James stated that one needed to look for the “*practical cash-value*” and then use the consequences within the sphere of experience to further explore realities (James, 1997a/1907, p. 98). This illustrates the idea of pluralism inherent within pragmatism (James, 1997c/1909).

In summary, pragmatism holds that what is known is true for now. It is a provisional truth only, as tomorrow, through more experience and more practical consequences, what is then thought to be true may look slightly different. The pragmatist has to be free and open in thought for new understanding to occur and for it to continue to occur. This included the evolution of theories and ways of explaining the world as stated by James:

“...the ways in which existing realities may be changed. Theories thus become instruments, not answers to enigmas, in which we can rest. We don’t lie back upon them, we move forward, and, on occasion, make nature again by their aid.” (James, 1997a/1907, p. 98)

McCready (2010) discussed pragmatism in relation to nursing suggesting nursing theories are regarded as provisional truths because of their effectiveness in practice, their 'practical consequences', but they are changeable and evolving. However, Hartrick-Doane and Varcoe (2005) argued that pragmatic praxis had theory and practice entwined and happening at the same time, whereas current nursing praxis, where theory informs practice and practice informs theory, shows more of a division, which would not be in keeping with a pragmatic epistemology.

In the current study, epistemologically, the participants as newly qualified nurses knew their own reality. They were experiencing it as the research unfolded. As the 'knower' of their reality they were able to make that 'known' through their data and the subsequent analysis. The current research has shaped new knowledge, a new understanding of their reality. It "*is the truth's cash-value in experiential terms*" (James, 1997b/1907, p. 114). This new provisional truth will lead to further actions and thus a new provisional truth will evolve in due course. However, the practical orientation to the problem of work-related stress during transition for newly qualified nurses has resulted in specific solutions being suggested rooted in their reality, in keeping with the modern application of pragmatic enquiry.

Pragmatism does not subscribe to any particular method of determining what is known (Warms and Schroeder, 1999). Pragmatism has no dogmas or doctrines (James, 1997a/1907). Supporting evidence should be sought from the widest possible range of sources and not be constrained by rigidity in what is deemed acceptable proof. As a result, a methodology needed to be selected that maintained the pragmatic need to be open to all sources of evidence.

4.2 Methodology

A methodology pertains to the theoretical assumptions and values of a given strategy to acquire knowledge (Giddings and Grant, 2007). Mixed methods methodology was selected for use in this research, which was defined by Johnson and Onwuegbuzie (2004):

“...the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study.” (Johnson and Onwuegbuzie, 2004)

Mixed methods methodology is not a mixture of paradigms (Sandelowski, 2000), hence the aim was to move beyond the “*paradigm wars*” as Johnson and Onwuegbuzie (2004) phrased it, so that this research was not constrained to use only quantitative or qualitative methods, but could use any combination of their associated methods in a single study. Mixed methods stem from a rejection by mixed methodologists of the ‘incompatibility of methods thesis’, which stated that because of the epistemological differences of the paradigms that underpin these methods it was not acceptable to utilise both in one study (Teddlie and Tashakkori, 2012). However, this argument is difficult to wholly reject for some paradigms where some methods would epistemologically be incongruent.

The practicalities of how and when to ‘mix’ has been the subject of theoretical debate. Johnson and Onwuegbuzie (2004) described how a mixed model (mixing both quantitative and qualitative methods at each stage of the research process) or mixed methods (separate qualitative and quantitative phases) could be utilised. However, Yin (2006) suggested that one of the potential risks with mixed methods methodology is that if qualitative and quantitative are not truly integrated then a single study will appear more like parallel studies. A study containing separate qualitative and quantitative phases might accentuate this risk. To maximise the strength of mixed methods, integration of qualitative and quantitative could occur at each stage of the research process: research questions, sample, data collection methods and data analysis strategies (Yin, 2006).

Johnson and Onwuegbuzie (2004) felt that pragmatism as espoused by the classical pragmatists was the natural philosophical partner of mixed methods methodology. The strength of mixed methods methodology was that the qualitative and quantitative components of a study could be mutually illuminating and thus provide the greatest understanding of an investigated topic by being the sum of its constituent parts (Woolley, 2009). This is pragmatic in that greater understanding and new knowledge are the practical consequences from having deployed the best

methodology, free from the constraints of having dogmatically followed a particular tradition.

Two suppositions led to the utilisation of mixed methods methodology. First, when a newly qualified nurse is asked to reveal what causes them work-related stress, what coping strategies they use, who are all the people they use for support when faced with work-related stress, how hardy and resilient they feel they are, their responses may not be as comprehensive as their responses to a questionnaire on each concept would be. Therefore, quantitative measuring of stress, coping strategies, social support, hardiness and resilience using established, comprehensive questionnaires provided participants with the broadest range of options to choose from, generating far greater accuracy in determining what their reality was.

Second, greater understanding of newly qualified nurse transition and their stress, coping strategies, social support, hardiness and resilience could be gained if they were given the opportunity to explain themselves, give exemplars, talk about issues that could potentially be absent from the questionnaires. Therefore, qualitative interviews provided participants with a platform to reveal their experiences, unconstrained from any predetermined quantitative tool.

By utilising sequential methods within a mixed methods methodology, the sum of each constituent method provided a greater understanding of transition, stress and potentially stress-mediating factors for newly qualified nurses than if only one method had been used. This methodology made the pragmatic epistemology visible in that it provided freedom to source different types of evidence (Johnson and Onwuegbuzie, 2004) to shape practical consequences through revealing new knowledge about the transition of newly qualified nurses. The methodology made the subsequent method choices visible and vice versa. However, integration of qualitative and quantitative data are most problematic at the data analysis stage because the methodological requirements for both qualitative and quantitative are completely different (Yin, 2006). To address this risk, the rigour demands of each need to be considered separately before progressing to merged data analysis (Kinn and Curzio, 2005).

4.2.1 Quantitative quality assurance

The assessment of the value of an instrument requires consideration of validity and reliability (Watson, 2013). Validity can be broken down into face validity (the questions are relevant and unambiguous), content validity (the full scope of what needs to be measured is represented in a balanced format) and construct validity (the questions test the proposed hypothesis or theory) (Bruce, Pope and Stanistreet, 2008). Factorial validity or structural validity can be tested using factor analysis (Watson, 2013). These types of validity constitute internal validity of a questionnaire. External validity is also relevant as it pertains to how generalizable the inferences of a study are, though Polit and Beck (2010) argued that generalizability is controversial because all research is contextual, even quantitative research.

Reliability pertains to the instrument's ability to perform similarly on more than one occasion (Bruce, Pope and Stanistreet, 2008). Within reliability there is the internal consistency of the instrument: whether the different items all adequately measure the same construct. There is also stability if it were administered by different people, to different people or to the same person on different occasions (Streiner and Norman, 2008). Internal consistency reliability can be tested using tests such as Cronbach's coefficient alpha, while stability or reproducibility can be measured using a test-retest measure (Lehane and Savage, 2013). The minimal acceptable result for the former test is usually $\alpha \geq 0.70$ (Kline, 2000, p. 13, p. 15) and for the latter test the correlation should be $r \geq 0.80$ (Kline, 2000, p. 11).

Validity and reliability were incorporated into the present study as part of the selection criteria (see Table 4.2), as part of the critique of the selected questionnaires (see Section 4.4.1) and by calculating the Cronbach's coefficient alpha for the Phase 1 sample. Cronbach's coefficient alpha is a very commonly used assessment of internal reliability (Liu and Zumbo, 2007). However, it is known to not be robust in certain situations such as when there are extreme outliers in the data (Christmann and van Aelst, 2006; Liu and Zumbo, 2007). To calculate a Cronbach's coefficient alpha, Kline (2000) stated that the sample had to be representative of the population and contain not less than one hundred people. The Phase 1 sample met both of these

criteria, thus Cronbach's coefficient alpha for each questionnaire, both total scale scores and each subscale (Field, 2009), was calculated and is presented as part of the critique of the selected questionnaires (see Section 4.4.1), as this was the recommendation of Pallant (2013).

4.2.2 Qualitative quality assurance

While there are no definitive criteria for judging quality in qualitative research (Braun and Clarke, 2013), Tracy (2010) did provide criteria for judging excellence in qualitative research. The criteria consisted of eight "*end goals*", though four of them; 'worthy topic', 'significant contribution', 'ethical' and 'meaningful coherence', appeared just as applicable to excellent quantitative research. 'Rich rigor', 'sincerity', 'credibility' and 'resonance' were the other four end goals that appeared unique to qualitative research. Braun and Clarke (2013) argued that any criteria for judging quality in qualitative research are not theoretically neutral and thus theoretical and methodological assumptions must be considered. Conversely, Tracy (2010) explicitly stated that the eight criteria of qualitative excellence were common to all qualitative studies and were not tied to any particular epistemology or ontological opinion. The four end goals that were considered unique to qualitative excellence are explored in this section.

To achieve 'rich rigor', there needed to be a sample that was appropriate to the research aims, a suitable amount of appropriate data from which claims could reasonably be made and an appropriate and accurately deployed analysis strategy (Tracy, 2010). In the current research, the sample was appropriate because they were all newly qualified nurses. Rigour of the interviewing process was demonstrated because there was an acceptable number of interviews conducted (see Section 4.7) that were lengthy, in-depth and followed the interview schedule that covered all the aims of the research (Tracy, 2010). Data analysis showed rigour because it was systematically conducted using thematic analysis (Braun and Clarke, 2006) (see Section 4.9.2 and Appendix 15) and the results are transparently reported in Chapters 5-7.

‘Sincerity’, with its links to ‘transparency’, related to being honest about the research process. ‘Sincerity’ also applies directly to the Chief Investigator, who through ‘self-reflexivity’ explores herself within the process (Tracy, 2010). Demonstrating ‘sincerity’ can help to provide ‘confirmability’. This is when the results and conclusions address the original research questions and do not convey the Chief Investigator’s preconceptions (Holloway and Wheeler, 2010). The Chief Investigator must be as objective as possible (Bryman, 2012) and to achieve this, must reflect on her own actions and feelings throughout the research process (Holloway and Wheeler, 2010). The Chief Investigator did consider her effect within the interview procedure (see Section 4.4.2) and that she was known to a proportion of the participants (see Section 4.8.1).

‘Credibility’ related to the ‘trustworthiness’ of the research findings and that others will trust the outcomes enough to utilise them in practice (Tracy, 2010). ‘Credibility’ requires that the reality for the participants has been captured accurately (Bryman, 2012) and is presented through the use of ‘thick description’ (Tracy, 2010, Bryman, 2012). The credibility of what has been captured and presented is sometimes checked through the use of member-checking as participants agree with the results because they see themselves in the results (Holloway and Wheeler, 2010). However, as Bryman (2012) outlined, the problems that can occur with member-checking are that participants may become defensive about what has been recorded or even want to censor their record. Bryman (2012) also questioned if participants were able to validate a researcher’s analysis of the data. In addition, the participant’s perception may change over time (Holloway and Wheeler, 2010). Therefore, member-checking as a strategy to promote credibility and trustworthiness was not undertaken in this research, but the use of ‘thick description’ was adopted as evidenced throughout the presentation of the results in Chapters 5-7.

Finally, to Tracy (2010), ‘resonance’ meant the degree to which others were able to connect to and be affected by the research. Incorporated into this ‘end goal’ was ‘transferability’. ‘Transferability’ considers whether similar results will be produced in a similar context, with similar participants (Holloway and Wheeler, 2010) or can be transferred or applied to other situations and populations (Tracy, 2010). Polit and Beck (2010) suggested that ‘transferability’ is largely determined by the reader of the

study to determine how transferable results and inferences are to other populations or situations. In this present research, by describing in great detail all aspects of the participants and the research process it allows others to judge the transferability of the results and conclusions to other participants and contexts (Braun and Clarke, 2013).

4.2.3 Mixed methods quality assurance

As a less established method of enquiry than quantitative and qualitative research, quality assurance in mixed methods research is considerably less developed compared to the aforementioned types of research (Heyvaert *et al.* 2013). Rigour in mixed methods research tends to focus on assessment of the research design (Wisdom *et al.* 2012). This limited quality appraisal strategy was illustrated by Pluye *et al.* (2009), who recommended mixed method quality appraisal should focus on the justification for the mixed methods design, how quantitative and qualitative data were collected and analysed, and how the results were integrated.

Teddlie and Tashakkori (2003) suggested that ‘results’ are the outcome of data collection and analysis, but in mixed methods, inferences are interpretations of the results. As such, in mixed methods they proposed that ‘inference quality’, ‘interpretive rigor’ and ‘inference transferability’ all needed to be assessed in an interpretive conclusion from the results (Teddlie and Tashakkori, 2003, p. 35). However, arguably, inferences are the merged analysis results of a mixed methods study, thus these components represent mixed methods quality assurance.

‘Inference quality’ and ‘interpretive rigor’ both have at their core the “*accuracy*” of the inference that is drawn and encompassed ‘internal validity’ taken from quantitative research and ‘credibility’ taken from qualitative research (Teddlie and Tashakkori, 2003, p. 36). ‘Inference transferability’ considers the generalisability of the results and encompasses ‘external validity’ taken from quantitative research and ‘transferability’ taken from qualitative research. Overall, while the terms are distinct to mixed methods, the individual quality assessments appear to still pertain to

quantitative and qualitative quality assurance requirements (Dellinger and Leech, 2007).

Teddlie and Tashakkori (2003, p. 40-41) did expand on the requirements of ‘interpretive rigor’ suggesting it consisted of ‘within-design consistency’ (inferences are consistent with the research questions and all aspects of method deployed), ‘conceptual consistency’ (inferences are consistent with each other and consistent with existing knowledge and theory), ‘interpretative consistency’ (inferences are consistent with the opinions of participants and other academics) and ‘interpretative distinctiveness’ (inferences differ from other possible interpretations). ‘Interpretive rigor’ was demonstrated in the present study through the use of a merged data analysis strategy (see Section 4.9.3), presentation of the inferences from the analyses throughout Chapter 6, where the quantitative and qualitative constituent parts are visible to show the accuracy of the inference and in the mixed methods results synthesis (see Section 7.4).

4.3 Method

This longitudinal research investigated newly qualified nurse transition over their first twelve months post-qualifying through their stressors and stress experiences and the potential mediators: coping, social support, hardiness and resilience. Mixed methods were employed by collecting quantitative and qualitative data at three time points. This section expands upon the method employed. All aspects of the data collection strategy are explained together with details of the sample for each phase, ethical approval and related ethical issues and the quantitative, qualitative and mixed data analysis strategies utilised.

4.4 Data collection

Applying the mixed methods typologies proposed by Johnson and Onwuegbuzie (2004) (see Section 4.2), data collection consisted of three quantitative phases followed by a qualitative phase, though there was also a within-stage mixed model design as the quantitative phases contained some qualitative open-ended questions.

There were three key elements to data collection: the data collection phases, the location of data collection at each phase, and the quantitative and qualitative data collection instruments, which were a package of questionnaires and a semi-structured interview with individual participants respectively.

There were four phases of data collection for each cohort summarized in Table 4.1. At Phase 4, there was a lag-time while mutually convenient appointments to meet for an interview were arranged. As a result, Phase 4 was completed for each participant between twelve and seventeen months post-qualifying.

Table 4.1 Phases and dates of data collection per cohort of nursing students

Cohort	February 2010	August 2010	February 2011	August 2011	February 2012	August 2012
A (Pilot)	Phase 1	Phase 2	Phase 3 Phase 4			
B		Phase 1	Phase 2	Phase 3 Phase 4		
C			Phase 1	Phase 2	Phase 3 Phase 4	
D				Phase 1	Phase 2	Phase 3 Phase 4

Phase 1 (quantitative package of questionnaires) = point of qualification
(last day of nurse education)

Phase 2 (quantitative package of questionnaires) = six months post-qualifying

Phase 3 (quantitative package of questionnaires) = twelve months post-qualifying

Phase 4 (qualitative individual interview) = twelve months post-qualifying

The location where data collection occurred differed for three out of the four phases. Phase 1 data were collected on campus in a classroom as this was where the nursing students heard a preceding presentation about the research as discussed in Section 4.6. While the package of questionnaires was being completed, nursing students were free to ask questions and confer with those around them, rather than imposing exam conditions. There was therefore a risk that a participant was influenced in their response to particular questions. However, given the considerable length of the package of questionnaires, the likelihood of such contamination

affecting the results was judged to be minimal and was outweighed by the desire to promote a relaxed atmosphere to promote recruitment and data collection.

The location where Phase 2 and Phase 3 data were collected was essentially unknown. The participant received the package of questionnaires either via email or post according to the preference they indicated in Phase 1. From Phase 1, 92% of participants opted to receive the package of questionnaires for Phases 2 and 3 via email, a similar preference rate to that found by Touvier *et al.* (2010). The participant was free to complete the package of questionnaires wherever they wanted. While convenience for the participant was paramount not least to promote retention, it was impossible to police the circumstances under which the data were collected, which has some notable disadvantages. It is possible that the data provided did not hail from the intended participant or the participant was influenced by another person (Bowling, 2014). It is also possible the location in which the data were provided was not conducive to the participant focusing on each question and giving each response due consideration. These risks were considered minimal based in part from the outcome of the pilot study (see Section 4.5).

In considering the location of the Phase 4 interviews, the participant had to have their privacy maintained while they spoke with the Chief Investigator (Farrimond, 2013). Therefore, a pre-booked office or meeting room at either of the two university campuses was used, whichever the participant indicated was most convenient for them to attend. The room was booked for two hours allowing ample time for the consent form to be read and signed, the interview to be conducted and a post-interview debrief. The location was selected on the basis that it was quiet, comfortable and had a sign on the door to say that no-one was permitted to enter. It also constituted a neutral and safe location where the ensuing conversation could not be overheard, thus maintaining confidentiality (Grove, Burns and Gray, 2013).

4.4.1 Quantitative instruments (Phases 1-3)

Crucial to being able to answer the research questions was the selection of the best available questionnaire to measure nursing stress, coping, social support, hardiness

and resilience contained in a package of questionnaires. On extensively searching the literature there were no questionnaires for each of these concepts that had been designed using newly qualified nurses as the study population. As the purpose of the research was not to generate a new questionnaire, selection criteria (Table 4.2) were applied to existing published questionnaires for each of these concepts. The questionnaires that were selected for use were critically examined as their strengths and weaknesses were relevant to validity, reliability (see Section 4.2.1) and interpretation of the results.

Table 4.2 Selection criteria applied to existing, published questionnaires

	Selection criteria
1	The contents and outcomes of the questionnaire needed to be in keeping with the research aims and questions
2	The questionnaire had to have been used in multiple published studies
3	Published data on the questionnaire needed to show an accepted standard of validity and reliability
4	The questionnaire needed to be self-administered and relatively quick and straight-forward to complete
5	The data and analysis needed to remain the property of the Chief Investigator
6	The author(s) of the questionnaire needed to be contactable in order to secure permission to use their questionnaire
7	The full questionnaire and score calculation instructions needed to be made available to the Chief Investigator

4.4.1.1 Stress questionnaire

A stress questionnaire was needed to measure the stressors associated with performing as a qualified nurse as well as meet the selection criteria. On this basis the questionnaires that were rejected are listed in Table 4.3.

Table 4.3 Stress questionnaires not selected for use with reasons

Name of questionnaire	Reason for non-selection
Nursing Stress Index (Harris, Hingley and Cooper, 1988)	Included a focus on job satisfaction: not required
Perceived Stress Scale (Cohen, Kamarck and Mermelstein, 1983)	Focused on general life situations that could be appraised as stressful: not required
Expanded Nursing Stress Index (French <i>et al.</i> 2000)	Not extensively used in research: limits evidence for acceptable validity and reliability of the tool (Bonnetterre <i>et al.</i> 2008)

The Nursing Stress Scale (NSS) was selected for use (Gray-Toft and Anderson, 1981). It was the most widely used measure of nursing stress in the literature (French *et al.* 2000). There were almost twenty studies found from 2000 onwards that had used the NSS. These studies predominantly involved international populations of qualified nurses working in a variety of clinical settings. However, for the first phase of literature searching that informed the literature review for this study only one study was found that had used the NSS with newly qualified nurses. This study consisted of a sample of just n= 18 six months post-qualifying newly qualified nurses (Brunero, Cowan and Fairbrother, 2008).

The NSS was developed to measure the frequency and sources of stress for hospital-based nurses. It does not measure the intensity of the stress felt for each of the sources of stress (Gray-Toft and Anderson, 1981). While not acknowledged by the authors the implication of the NSS is that if a person has a lot of sources of frequently occurring stressors, they are a highly stressed nurse. However, it is conceivable that just a few sources of frequently occurring stressors can still create a highly-stressed nurse. Therefore, while the lack of measurability of the intensity of stress is not a weakness of the NSS, as that is not its intention, it is a factor in the interpretation of the results it is capable of producing. Additionally, by focusing on only hospital-based nurses, its applicability to community and hospice nurses is questionable because there may be sources of stress that the NSS does not account for (French *et al.* 2000).

During development of the NSS, the initial items of the scale were determined from interviews with nurses, doctors and chaplains and a literature review (Gray-Toft and Anderson, 1981). It was not clear why doctors and chaplains were included in this initial phase when the purpose was to determine nurse stressors. Thirty-four items were identified from this phase of development and the scale was administered to 90% (n= 122) of all the nurses that worked on five different units in one large American private general hospital (Gray-Toft and Anderson, 1981). This represented a broad cross-section of specialities in which hospital-based nurses worked, but by only using one hospital it may have meant that issues specific to that hospital were an additional variable. Generalisability to other types of hospitals and countries may be a limitation.

The final version of the NSS used a scoring system of '0= never', followed by 'occasionally', 'frequently' to '3= very frequently' for thirty-four items, grouped into seven subscales (Gray-Toft and Anderson, 1981). The seven subscales were the seven major sources of stress identified by the hospital-based nurses and these were further grouped into three environmental factors: the physical environment (NSS 6 'workload'), the psychological environment (NSS 1 'death and dying', NSS 3 'inadequate preparation', NSS 4 'lack of support', and NSS 7 'uncertainty concerning treatment') and the social environment (NSS 2 'conflict with physicians' and NSS 5 'conflict with other nurses') (Gray-Toft and Anderson, 1981).

While appropriate principal components analysis was undertaken to identify the seven stress sources within the NSS (Bonnetterre *et al.* 2008), inspecting the items that were included in the thirty-four item scale, there are some potential weaknesses. 'Performing procedures that patients experience as painful' was placed in 'death and dying' (NSS 1), but the link to death and/or dying is not obvious. 'Inadequate preparation' (NSS 3) focuses on the stressors associated with dealing with the emotional needs of patients and their families. The three items in this subscale are very psychological/emotion-focused. There are no items that pertain to inadequate preparation to carry out a procedure or a task. Equally, there are no items about a lack of knowledge or experience. Similarly, 'lack of support' (NSS 4) is also very psychological/emotion-focused and there are no items that pertain to a lack of practical help such as asking another nurse to help with a task and nurses refusing to

help when asked. 'Floating to other units that are short-staffed' was placed within 'conflict with other nurses' (NSS 5). While being floated to another unit might cause stress it does not necessarily have to result in a conflict with other nurses, so placing it in this category is not obvious. Also, rotation to other units is known to be problematic, certainly for newly qualified nurses (Kelly and Ahern, 2009; McKenna and Newton, 2008; Malouf and West, 2011), but it is different to floating to another unit for a shift. Rotation is not an item in the NSS. Finally, conflict with other nurses and doctors is accounted for in the NSS, but conflict with other staff such as HCAs is not, yet is known to be a source of conflict for newly qualified nurses (Dyess and Sherman, 2009; Chandler, 2012). The weaknesses identified may have been as a result of deficiencies in the original scoping for the questionnaire or they may be a reflection of changes to stressors experienced by nurses in a modern context.

To establish validity of the NSS, its relationship to state/trait anxiety, job satisfaction and turnover were tested (Gray-Toft and Anderson, 1981). All relationships proved satisfactory, thus establishing validity of the questionnaire. To test for reliability of the NSS, Gray-Toft and Anderson (1981) performed a test-retest on a subgroup of the original nurses that participated ($n = 31$). 'Inadequate preparation' (NSS 3), 'lack of support' (NSS 4) and 'uncertainty concerning treatment' (NSS 7) all failed to meet the minimum reliability coefficient that was set at 0.70, which was also lower than the 0.80 suggested as acceptable by Kline (2000). Indeed, 'inadequate preparation' (NSS 3) was notably less at just 0.42. Four different measures of internal consistency were also undertaken. 'Conflict with physicians' (NSS 2) and 'lack of support' (NSS 4) both failed to achieve a reliability coefficient of 0.70. Therefore, the reliability of 'conflict with physicians' (NSS 2), 'inadequate preparation' (NSS 3) and 'uncertainty concerning treatment' (NSS 7) is questionable, and the reliability of 'lack of support' (NSS 4) is highly questionable given it failed all tests for reliability. However, when the total score for the NSS was subjected to the same tests for reliability, test-retest and internal consistency tests all produced acceptable results including a Cronbach's coefficient alpha of 0.89.

To calculate the results for the NSS, each of the seven subscales is summed to produce a subscale total. Likewise, all thirty-four item scores are summed to

produce an overall total stress score (Gray-Toft and Anderson, 1981). Post-publication of Gray-Toft and Anderson (1981) the scoring was amended from 0-3 to 1-4 per item. (See Appendix 2: correspondence with the co-author of the NSS, Professor Anderson). The final version of the NSS that was used in this research was the amended version provided by the co-author using the amended scoring system. Taking into account the amended scoring meant that the total possible score now became 136 and not 102 as in the original publication. This scoring amendment has not been published. Consequently, both scoring systems are evident in published research that has used the NSS. This means that published stress scores have to be considered in the context of the scoring system deployed and research that does not detail the scoring that was used is difficult to interpret or use for comparison.

According to Field (2009), a Cronbach's coefficient alpha should be calculated for each subscale as well as the entire scale using the study sample. For the present study, the Cronbach's coefficient alpha for each subscale using the Phase 1 dataset was 0.66-0.75. This outcome favourably compares to Cronbach's coefficient alpha for each subscale originally calculated by Gray-Toft and Anderson (1981), which was 0.64-0.80. The Cronbach's coefficient alpha for the total stress score using the Phase 1 dataset was 0.90, which is indicative of good internal consistency (Kline, 2000). This compares favourably to the Cronbach's coefficient alpha calculated by Gray-Toft and Anderson (1981), which was 0.89 and by Brunero, Cowan and Fairbrother (2008) who, using a small sample of six months post-qualifying newly qualified nurses, calculated a Cronbach's coefficient alpha of 0.91. Consequently, the NSS showed acceptable reliability for the sample in this present study.

4.4.1.2 Coping strategies questionnaire

Table 4.4 details the coping questionnaires that were considered, but not selected for use in this research. The Coping Orientation to Problems Experienced (COPE) Inventory (Carver, Scheier and Weintraub, 1989) was selected for use because the aim of this research was to determine the fullest possible range of coping strategies utilised by the participants, and with its fifteen subscales, the COPE Inventory appeared to meet this requirement.

Table 4.4 Coping strategies questionnaires not selected for use with reasons

Name of questionnaire	Reason for non-selection
Ways of Coping Scale (Folkman and Lazarus 1980, 1985)	Focused on coping as a process. Required the participant to consider one stressful encounter only. Too limiting for this research.
Multidimensional Coping Inventory (Endler and Parker, 1990)	Not extensively used in research: limits evidence for acceptable validity and reliability of the tool
Coping Styles Questionnaire (Roger, Jarvis and Najarian, 1993).	Was only identified post-ethical approval for this research

The COPE Inventory was administered in its dispositional rather than situational format in order to determine what the participants in the present research ‘usually do’ when experiencing a stressful transaction. (A discussion on whether coping is a trait/disposition or a process is provided in Section 2.3). There were multiple examples in the literature where the COPE Inventory had been successfully used with patients who had physical or mental health problems and as part of investigations into general stress. However, only one study, using a sample of nursing students in Natal in the late 1990s was found, which had used the COPE Inventory. No research was found where it had been used with newly qualified nurses or qualified nurses.

Carver, Scheier and Weintraub (1989) initially created the theoretically derived, rather than empirically derived, COPE Inventory and tested it with $n = 978$ undergraduate students in one American university. The inventory at that time consisted of thirteen, four item subscales and a one item question relating to alcohol and drug use. Four of the subscales were akin to problem-focused coping: ‘active coping’, ‘planning’, ‘suppression of competing activities’ and ‘restraint’. Two subscales related to social support: ‘use of instrumental social support’ was also a problem-focused coping strategy, while ‘use of emotional social support’ was more likely to be an emotion-focused coping strategy, which Carver, Scheier and Weintraub (1989) felt had the potential to be dysfunctional. There were three more subscales that were likely to be dysfunctional: ‘focus on venting of emotions’, ‘behavioural disengagement’ and ‘mental disengagement’. Another subscale was

‘positive reinterpretation and growth’, which Carver, Scheier and Weintraub (1989) felt was the same as positive reappraisal proposed by Lazarus and Folkman (1984). It was emotion-focused coping in that a person reappraised a situation to be less stressful without actually changing the situation, but it had the potential to return the person to problem-focused coping. Two subscales were polar opposites: ‘denial’, which despite Carver, Scheier and Weintraub (1989) acknowledging it could be interpreted in different ways was only operationalized as a dysfunctional coping strategy and ‘acceptance’, regarded as a completely functional coping strategy. The final subscale was ‘religious coping’. Carver, Scheier and Weintraub (1989) considered this could be an element of ‘active coping’, ‘positive reinterpretation and growth’ and ‘use of emotional social support’, but it was operationalized as simply turning to religion to manage stress.

Table 4.5 Second order factor analysis grouping of the COPE subscales and interpretation of the groups

	Second order factor analysis groups (Carver, Scheier and Weintraub, 1989)	Interpretation of the groups (Lyne and Roger, 2000)
Factor 1	<ul style="list-style-type: none"> • Active coping • Planning • Suppression of competing activities 	Task
Factor 2	<ul style="list-style-type: none"> • Focus on venting of emotions • Use of instrumental social support • Use of emotional social support 	Emotion
Factor 3	<ul style="list-style-type: none"> • Mental disengagement • Behavioural disengagement • Denial 	Avoidance
Factor 4	<ul style="list-style-type: none"> • Acceptance • Restraint • Positive reinterpretation and growth 	Cognitive
Non-factored subscale	<ul style="list-style-type: none"> • Religious coping 	[not interpreted]

Carver, Scheier and Weintraub (1989) undertook second-order factor analysis on the subscales to create four factors, which Lyne and Roger (2000) subsequently labelled in broader coping terms (Table 4.5). Religious coping did not load with any of the factors and alcohol-drug disengagement was not included in the analysis (Carver,

Scheier and Weintraub, 1989). Lyne and Roger (2000) heavily criticised the overall factor analysis process performed by Carver, Scheier and Weintraub (1989) arguing that required detail was missing and it appeared to not follow accepted convention.

To establish reliability of the COPE Inventory, test-retest was performed eight weeks apart using $n = 89$ undergraduate students. This is less than the three month time lapse recommended by Kline (2000). Reliability of the COPE Inventory was found to be questionable as all but three of the subscales scored less than 0.70 (Lyne and Roger, 2000). Cronbach's coefficient alpha was also calculated for each of the thirteen subscales. Five of the subscales had a Cronbach's coefficient alpha of 0.60-0.69, which Carver, Scheier and Weintraub (1989) regarded as acceptable, though ≥ 0.70 is generally regarded as the benchmark for acceptability (Field, 2009). The 'mental disengagement' subscale only achieved a Cronbach's coefficient alpha of 0.45, which is poor. Given that each of these subscales consisted of only four items there was an increased risk of error variance (Lyne and Roger, 2000). Pallant (2013) suggested that when there were less than ten items in a scale it might be more appropriate to present a mean inter-item correlation, but Carver, Scheier and Weintraub (1989) did not report this for the COPE Inventory.

Though not expressly described as such, Carver, Scheier and Weintraub (1989) examined validity by testing the inventory's association with five personality dimensions including hardiness. The presence as well as direction of most of the correlations was in keeping with what had been expected, thus validity of the COPE inventory was acceptable.

In addition to the criticisms levelled against the COPE Inventory by Lyne and Roger (2000), another potential weakness is that the inventory was slightly modified after the data were published (Juniper, 2009). Less concerning is that some of the subscales were re-named, so their current rather than published title has been used for consistency within this thesis. More concerning is that the single item 'alcohol-drug disengagement' was expanded to a four item subscale titled 'substance use' and a new subscale, 'humour' was included. Only acceptable Cronbach's coefficient alpha results on $n = 768$ university students were presented by Carver, Scheier and Weintraub (1989) as a footnote. The lack of inclusion of these two new subscales

and testing of the now fifteen subscales/sixty item COPE Inventory compromises full assessment of the COPE Inventory.

The scale consists of fifteen subscales, each containing four items. Each item is scored on a Likert scale of '1= I usually don't do this at all', followed by 'I usually do this a little bit', 'I usually do this a medium amount' to '4= I usually do this a lot'. An overall value for each subscale is calculated by summing each subscale's constituent questions (Carver, Scheier and Weintraub, 1989). In the present study, the Cronbach's coefficient alpha was calculated for each of the fifteen subscales using Phase 1 data. Ten of the subscales were $\alpha \geq 0.70$, suggesting acceptable internal consistency (Kline, 2000). For the remaining subscales, Cronbach's coefficient alpha was: 'behavioural disengagement'= 0.67, 'acceptance'= 0.62, 'restraint'= 0.55, 'suppression of competing activities'= 0.51 and most concerning, 'mental disengagement'= 0.36. This latter result mirrored the notable weakness in the internal consistency of the subscale reported by Carver, Scheier and Weintraub (1989). Furthermore, the subscales where the result was $\alpha < 0.70$ are suggestive of questionable internal consistency.

4.4.1.3 Social Support questionnaire

A functional social support questionnaire was required to determine the range of reasons why a social network might be utilised by the participants in conjunction with their work-related stress. The questionnaires that were identified, but rejected are shown in Table 4.6. The MOS Social Support Survey (Sherbourne and Stewart, 1991) was selected for use because the contents of the questionnaire appeared to be a comprehensive approach to assessing functional social support only. There were multiple examples in the literature of the MOS Social Support Survey having been used to determine functional social support for people with different types of acute illness and long term conditions, in international patient populations and as part of validity studies of new questionnaires. However, there was no literature found to suggest it had ever been used with newly qualified nurses, nursing students or qualified nurses as the target population.

Table 4.6 Social Support questionnaires not selected for use with reasons

Name of questionnaire	Reason for non-selection
Social Provisions Scale (Cutrona and Russell, 1987)	Focused on social networks. Too limiting for this research.
The Duke–University of North Carolina Functional Social Support Questionnaire (Broadhead <i>et al.</i> 1988)	Devised for use in general practice settings to identify people at risk of social isolation. Not in keeping with the aims of this research.
Social Support Questionnaire (Sarason, Levine and Basham, 1983)	Also included structural support questions: not required

The original intention of Sherbourne and Stewart (1991) was to create a functional social support questionnaire to be used with chronically ill patients that were already engaged in their longitudinal research. To determine the items in the questionnaire, a literature review was conducted to identify potential dimensions of functional social support, which led to a fifty item questionnaire. Face validity was then determined by six behavioural scientists, who were asked to categorise the items. This refined the questionnaire down to thirty-seven items. The questionnaire was then piloted on an undisclosed number of patients visiting one clinic and that further refined it to the final nineteen item questionnaire.

Despite their intention to produce a functional social support questionnaire, Sherbourne and Stewart (1991) also included two structural social support questions: the number of close friends/relatives and marital status. Their rationale for this inclusion was that little was known about how structural and functional social support related. However, it is a superficial attempt to address the issue. Marital status was subsequently dropped from the questionnaire post-publication, despite its inclusion being supported within their data analysis. The number of close friends/relatives was disregarded in the final data analysis of the current research for two reasons. First, using the published format of Sherbourne and Stewart (1991) as recommended by Juniper (2009), the question was presented in the package of questionnaires as follows:

1. About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?

Write in number of close friends and
close relatives:

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Participants revealed during the pilot study (see Section 4.5) that they interpreted the question in three ways: some wrote a number in one box e.g. 11, some wrote a number in each box e.g. 1, 1 because they had interpreted the question as the number of close friends in one box (e.g. 1) and the number of close relatives in the other box (e.g. 1), and some wrote a number in each box e.g. 1, 1 to signify 11. This made the data unreliable. Second, structural social support questions were included in the package of questionnaires, so this question with its inherent weakness was disregarded.

The MOS Social Support Survey consists of nineteen items scored using a Likert scale where '1= none of the time', followed by 'a little of the time', 'some of the time', 'most of the time' to '5= all of the time'. Each of the four subscales are summed and averaged to produce a subscale score. The subscales together with one standalone item are then averaged to create an 'overall support index' (total support score) (Sherbourne and Stewart, 1991).

Sherbourne and Stewart (1991) tested the questionnaire on n= 2987 patients who were already part of a longitudinal study of patients with chronic conditions. Item validity showed that all items were positively skewed (Sherbourne and Stewart, 1991), but despite this outcome only parametric tests appeared to be used in their subsequent analyses.

Multitrait and factor analyses showed that of the five original subscales, two subscales overlapped, so the final questionnaire contained four subscales with the two overlapping subscale scales simply added together (Sherbourne and Stewart, 1991). Therefore, the four subscales in the MOS Social Support Survey are: 'emotional/information support' (eight items), 'tangible support' (four items), 'affectionate support' (three items), and 'positive social interaction' (three items). Sherbourne and Stewart (1991) commented that on re-examining the items in the

‘emotional/information support’ subscale, it could be more accurately renamed as ‘supportive communication’ and that a new subscale for emotional support should be created that more closely identified caring, love and empathy, but at the same time keeping it distinct from ‘affectionate support’. The questionnaire has never been modified despite this recommendation. Furthermore, Sherbourne and Stewart (1991) stated that one of the original ‘positive social interaction’ items did not discriminate acceptably with ‘emotional/information support’, so they removed it from the other analyses they undertook, but they continued to keep it as a standalone item in the questionnaire. They did not explain why they did not opt to remove it from the survey completely.

To test validity of the questionnaire, Sherbourne and Stewart (1991) undertook correlation analyses with a range of health and well-being scales; one of them was a one item family happiness question/scale, which was of questionable benefit. Acceptable validity was demonstrated, as was reliability through an acceptable test-retest outcome on an undisclosed number of participants one year later. Internal consistency was demonstrated by calculating the Cronbach’s coefficient alpha for each of the four subscales with results ranging from 0.91-0.96 and an overall support index (total support score) of 0.97 (Sherbourne and Stewart, 1991). In this present research, very similar Cronbach’s coefficient alpha results were obtained using Phase 1 data. For the subscales, the range was 0.89-0.96 and the overall support index was also 0.97. These results show a high level of internal consistency for the MOS Social Support Survey (Kline, 2000).

4.4.1.4 Hardiness questionnaire

There were few hardiness questionnaires found in the published literature and those that were found had notable limitations, hence they were rejected (Table 4.7). Furthermore, hardiness questionnaires have been criticised for an imbalance in the number of items related to the three components of hardiness (Funk, 1992), hence this was also considered in questionnaire selection. The best available measure of hardiness that gave equal weight to ‘control’ hardiness, ‘commitment’ hardiness and ‘challenge’ hardiness was the Dispositional Resilience Scale (DRS). The author of this questionnaire would only release the full version and score calculation

instructions for the fifteen item DRS15-R version of the questionnaire (see Appendix 2). There was no literature found to suggest it had ever been used with newly qualified nurses, nursing students or qualified nurses as the target population.

Table 4.7 Hardiness questionnaires not selected for use with reasons

Name of questionnaire	Reason for non-selection
Health-Related Hardiness Scale (Pollock and Duffy, 1990)	Devised for use for people with actual health problems. Not in keeping with the aims of this research.
The Unabridged Hardiness Scale (Ouellette, 1993)	Determined absence not presence of hardiness. Not in keeping with the aims of this research.
Personal Views Survey-IIIR (Maddi and Khoshaba, 2000)	Data and analysis not the exclusive property of the Chief Investigator

The DRS is a misnomer as it is purely a hardiness scale with items related to ‘control’ hardiness, ‘commitment’ hardiness and ‘challenge’ hardiness, and no additional items related to resilience. The original DRS is a forty-five item scale that was later reduced to thirty items and then to the fifteen item DRS15-R version (Bartone, 1999). The original forty-five item DRS scale had been developed as a modified version of the questionnaire created by Kobasa, who had originally conceptualised hardiness (Bartone *et al.* 1989) (see Section 2.5).

Bartone (1999) used the DRS15-R along with other questionnaires on stressful life events, war-zone stressors and a health symptoms checklist to determine if hardiness had a protective effect for military personnel that had returned from the Gulf war in 1992. Extracting the particulars of the DRS15-R from this research, Bartone (1999) used a sample of $n = 787$ personnel from six Army National Guard and reserve medical units located in three American states. The sample included 45% women and there was a mean age of thirty-four years ($SD = 10.6$), though missing data were not acknowledged so confidence in the demographic statistics is weakened. Bartone (1999) stated that the Cronbach's coefficient alpha for this sample for total hardiness was 0.82 and each of the subscales had a result of: ‘commitment’ hardiness = 0.77, ‘control’ hardiness = 0.68 and ‘challenge’ hardiness = 0.69.

Bartone (1999) did not present test-retest reliability data, but Bartone (2007) determined in a sample of 104 American military students that the DRS15-R had a three week test-retest reliability coefficient of $r = 0.78$ for total hardiness and for each of the subscales it was: 'commitment' hardiness $r = 0.75$, 'control' hardiness $r = 0.58$ and 'challenge' hardiness $r = 0.81$. The result for 'control' hardiness is notably weak. The time lapse between test and retest is very small as a gap of not less than three months would have been more desirable to assess reliability (Kline, 2000). Furthermore, Bartone (2007) stated that the test-retest reliability coefficient was a better test of reliability than Cronbach's coefficient alpha, so deliberately did not calculate it for this sample. If it had been calculated it might have added to confidence in the internal consistency of the DRS15-R.

Given that the research by Bartone (1999) appeared to imply that this was the first time the DRS15-R scale had been used in research, there is absolutely no detail on the factor analysis that went into refining the scale down to fifteen items from either the previous forty-five or thirty item iterations of the scale or that other tests for validity had been undertaken. Moreover, none of this essential detail has ever been published compromising the potential quality of the questionnaire.

The DRS has been used in research, but it frequently appears in different formats using different populations, for example: a modified forty-five item scale using elderly American residents (Wallace, Bisconti and Bergeman, 2001), a modified forty-five item scale translated into Polish using lower and middle level managers (Luszczynska and Cieslak, 2005), a thirty item scale using a sample of high-tech and government agency workers (McCalister *et al.* 2006), and a modified thirty item scale using American undergraduates (Lifton *et al.* 2006). The DRS15-R has been used in research as a modified fifteen item scale translated into Norwegian using military personnel (Bartone *et al.* 2012), undergraduates (Hystad *et al.* 2009) and civilians and military personnel (Hystad, Eid and Brevik, 2011). Most pertinent to the current study, the English version of the DRS15-R was utilised by Britt, Adler and Bartone (2001) and Taylor *et al.* (2013), but in both instances the sample was military personnel.

The only examples found in the literature where the DRS was used with a nursing sample were Judkins, Reid and Furlow (2006) and Judkins, Furlow and Kendricks (2007). In both examples, nurse managers were given a modified forty-five item scale as part of an investigation into the effects of a hardiness training programme. The sample sizes for the two studies were $n=13$ and $n=12$ respectively, making both studies seriously underpowered to meaningfully draw any conclusions from the results.

The DRS15-R consists of fifteen items of which five items each relate to 'control' hardiness, 'commitment' hardiness and 'challenge' hardiness. Each item is a statement scored on a four point Likert scale from '0= not at all true', followed by 'a little true', 'quite true' to '3= completely true'. The total score for each of the three subscales is calculated by summing the scores for each of the five items taking into account a few reverse scored items and summing these three outcome scores to produce an overall total hardiness score. (Scale calculation instructions were made available as part of the written permission to use the questionnaire provided by the author: see Appendix 2).

There are clearly some notable limitations to the DRS15-R, not least the lack of published data on its reliability and validity and its lack of application to nurses as a study population. However, Funk (1992) in a review of available hardiness measures at the time considered the DRS forty-five item scale to be more advantageous than other measures because it had positively keyed items and an equal number of items for each of the three hardiness subscales. The DRS15-R has the same two features, with a majority of positively keyed items throughout. Positively keyed items using the forty-five item scale was shown to make the construct of hardiness distinct from neuroticism, but also having some negatively keyed items was shown to be important in determining different health and performance outcomes (Sinclair and Tetrick, 2000) and reducing the risk of rating bias (Ahern *et al.* 2006).

The Cronbach's coefficient alpha for total hardiness was 0.82 in the original research by Bartone (1999). In the current study, using Phase 1 data, the Cronbach's coefficient alpha for total hardiness was 0.67 and for each of the subscales the result was: 'commitment' hardiness= 0.57, 'control' hardiness= 0.44 and 'challenge'

hardiness= 0.60. Consequently, as the Cronbach's coefficient alpha was less than 0.70, total hardiness and the subscales show questionable internal reliability (Kline, 2000). 'Control' hardiness is notably weak, as had also been reported by Bartone (1999).

4.4.1.5 Resilience questionnaire

The Connor-Davidson Resilience Scale (CD-RISC) was the resilience questionnaire selected for use in this research (Connor and Davidson, 2003). Other resilience questionnaires that were considered, but were rejected are shown in Table 4.8.

Table 4.8 Resilience questionnaires not selected for use with reasons

Name of questionnaire	Reason for non-selection
Resilience Scale for Adults (Hjemdal, Friborg and Martinussen, 2001)	Not extensively used in research: limits evidence for acceptable validity and reliability of the tool
Baruth Protective Factors Inventory (Baruth and Carroll, 2002)	Not extensively used in research: limits evidence for acceptable validity and reliability of the tool
Ego-Resiliency Scale (Block and Kremen, 1996)	Focused on ego-resiliency. Too limiting for this research.
Resilience Scale (Wagnild and Young, 1993)	Might not represent the broadest understanding of resilience (Polk, 1997). Test-retest reliability needed to be evaluated further (Ahern <i>et al.</i> 2006).

The CD-RISC was originally produced as a way of measuring “*resilient characteristics*” to determine the effectiveness of treatment for post-traumatic stress disorder (Connor and Davidson, 2003). It is this potential of the scale to capture changes in resilience over time that was one of the reasons for selection, which was confirmed in written correspondence with one of the co-authors, Professor Davidson (see Appendix 2). The second reason for selection was the CD-RISC has been consistently used in research since it was first published, not only in conjunction with post-traumatic stress disorder, but also to determine levels of resilience in people with different physical/mental health illnesses and long term conditions, stressful life circumstances and events, as well as part of validity studies of new questionnaires.

One study was found where it was used with Australian theatre nurses (Gillespie *et al.* 2007), though no literature was found to suggest it had ever been used with newly qualified nurses.

The CD-RISC is a theoretically derived questionnaire that includes the hardiness work of Kobasa (1979). It is a twenty-five item scale. Each item in the scale is scored using a Likert scale of '0= not true at all', followed by 'rarely true', 'sometimes true', 'often true' up to '4= true nearly all the time'. The individual scores are then summed to give an overall score for resilience ranging from zero to one hundred: the higher the score the more resilient the person is considered to be. There are no subscales in the CD-RISC. Each of the twenty-five scale items is positively worded, which is a potential weakness as a mixture of positive and negatively worded items in an attitudinal scale assists in reducing the risk that some people tend to respond in a socially desirable or acquiescent manner (Oppenheim, 1992; Coolican, 2014).

The CD-RISC was tested on a mixed sample of $n = 806$ people of whom $n = 577$ were regarded as a general population group and the remainder were subgroups of people attending primary care or psychiatric outpatients, or were participating in clinical trials for generalized anxiety disorder or post-traumatic stress disorder. The sample showed an acceptable mix of gender, ethnicity and adult age range. As Connor and Davidson (2003) had a mixture of subgroups within their overall sample, they calculated the Cronbach's coefficient alpha on the $n = 577$ general population group only ($\alpha = 0.89$) and the test-retest on $n = 24$ who had shown no clinical change on two clinical visits ($r = 0.87$). Both results showed good reliability (Kline, 2000), though for the test-retest, a larger sample, one hundred or more people according to Kline (2000), or using the general population group on two different occasions may give greater confidence in the result.

To determine validity, Connor and Davidson (2003) used six pre-existing questionnaires including questionnaires on social support, perceived stress and hardiness. However, they did not include a coping questionnaire, which may have been a weakness given the potential association resilience might have with coping (Leipold and Greve, 2009). The results showed that resilience, as measured by the

CD-RISC, was highly positively correlated to both hardiness and social support and highly negatively correlated to perceived stress.

The Cronbach's coefficient alpha for resilience was 0.89 in the original research (Connor and Davidson, 2003). A study of n= 772 Australian theatre nurses calculated the Cronbach's coefficient alpha for the CD-RISC as 0.90 (Gillespie *et al.* 2007). In this present research, using Phase 1 data, the Cronbach's coefficient alpha for resilience was 0.91, thus showing good internal consistency (Kline, 2000).

4.4.1.6 Order and content of the package of questionnaires

The package of questionnaires the participants received was compiled into one document (see Appendices 3, 4 and 5). The package of questionnaires was clearly divided into subject sections, which Harcombe *et al.* (2011) had found was well-received by participants when completing questionnaires. This also allowed for additional questions to be logically sequenced within each section, though not within the five published questionnaires discussed in the preceding sections, as care was taken to present each of these questionnaires as published to preserve their validity (Juniper, 2009).

The Phase 1 package of questionnaires commenced with demographic questions including the participant's name, contact details, age, gender, cohort, nurse education qualification, if they had been employed in a healthcare setting prior to commencing their nurse education, what their job was and how long they had been in it. These questions were positioned first in the package of questionnaires as they were easy questions and more challenging questions would then follow (Newell and Burnard, 2011). The purpose of these questions was to identify the participant in order to accurately track their participation across each phase of data collection and to gain a description of the participant for future analysis. Some of the descriptors were derived from the literature review that implied they may be a relevant factor; for example, age (Duchscher, 2009; Gillespie *et al.* 2009) and previous healthcare experience (RCN, 2008).

The Phase 2 and Phase 3 package of questionnaires commenced with a reduced amount of demographic questions compared to Phase 1, but some Phase 1 questions were repeated to allow for the data to be checked for accuracy prior to analysis. For example, some participants missed out the 'Hons' from their qualification and thus appeared in one phase as 'BSc Hons' and another phase as 'BSc'.

After the demographic questions the NSS was positioned next so the participants were immediately focused on nursing and stress. This was important because the questionnaires that followed were hardiness, resilience, coping and social support in this order, all of which were general questionnaires that, like the NSS, had been replicated exactly how they had been published. This meant that the participant could not explicitly be instructed to think about nursing, but it was hoped that by starting with nursing and stress their interest to complete the package of questionnaires would be ignited and they would be thinking about their nursing experiences while completing the document. This was indirectly supported by Newell and Burnard (2011) who felt that grouping similar questions together carried a risk of creating a context effect, which could influence how subsequent questions were answered. The intention behind the ordering of the package of questionnaires was to create a context effect. Additionally, hardiness and resilience were situated after stress so that personality was integrated into the package of questionnaires, rather than following coping and social support (conceptually in keeping with the cognitive appraisal of stress and coping theory) and potentially being regarded as separate to thinking about stress and nursing.

Additional questions were added to the section on stress at all three phases. At Phase 1, the participants were asked questions on their nursing education such as how stressful they had found it and what the stressors were. This was designed to test the outcome of previous research that the stressors that affect nursing students do not continue into their qualified career (see Section 3.3). At Phases 2 and 3, the participants were again asked to rate how stressful they had found their nurse education to test if their perception had changed over time. The participants were then asked to rate how stressful they had found working as a qualified nurse and to compare what had caused them stress working as a qualified nurse with what had caused them stress as a nursing student.

Thereafter, the participants were asked if and what illnesses/signs/symptoms they felt they had experienced that they attributed to work-related stress. The question made clear that these could be diagnosed or undiagnosed, as the likelihood was that some would be undiagnosed. The additional stress questions concluded with a series of questions intended to determine if it had been suggested to them that they should seek help with work-related stress and what that help might have been, such as a stress management course or counselling.

Additional questions were added to the section on social support at all three phases to identify the structural social support the participants utilised in relation to work-related stress. This was required because the MOS Social Support questionnaire only determined functional social support (Sherbourne and Stewart, 1991). All the potential members of a social network were listed along with a question aimed at quantifying how many friends they used to manage work-related stress. The list had been tested on the pilot group (see Section 4.5) to check if it was exhaustive, though an option to name other network members was still provided. Determining the structural social support network could have been posed as an open-ended question. This was not done because there was a risk that a participant would not list all the members of their network. Posing the question quantitatively allowed for a more complete list to be generated.

Newell and Burnard (2011) suggested open-ended questions should be used sparingly as part of their guidelines for how to construct a questionnaire. The open-ended questions were used sparingly and strategically throughout the package of questionnaires, so as not to add to the length of the package of questionnaires, thus adding to the burden on the participant and potentially causing attrition from the research. They were only posed when the response to an additional quantitative question needed explaining in order to provide a greater understanding for that response in relation to the research aims and questions.

4.4.2 Qualitative instrument (Phase 4)

Phase 4 was a semi-structured interview conducted between the participant and the Chief Investigator. A semi-structured rather than structured interview format was selected in order to allow the emic view, the participant's perspective to emerge through the interview (Grove, Burns and Gray, 2013). The schedule for the interview (see Appendix 6) consisted of key questions and prompts covering nursing stress, coping strategies, social support, hardiness and resilience.

The opening interview question asked the participant to detail what had caused them stress at work during their first year post-qualifying. This was intended to determine work-related stressors. Having started the interview with the participant considering their work-related stress, how they coped with the stressful situations they had encountered was positioned as the next question along with 'who' and 'how' social support was used to help with their work-related stress. The social support prompts would provide data on their functional and structural social support. Thereafter, participants were asked to self-assess their own hardiness and resilience with a practical illustration of what hardiness and resilience is to aid their understanding. Having established the participant thinking about stressors and related issues over their first twelve months post-qualifying, the interview concluded with three questions aimed at determining what the HEI and the workplace did or could have done to help with the stressors they experienced. This had the pragmatic potential to identify future 'solutions' (Hammond and Wellington, 2013). Participants were not asked directly about transition in keeping with the aims of the research (see Section 3.8.1), which was to investigate transition through their stress experiences together with their coping, social support, hardiness and resilience in relation to these experiences.

Each interview lasted 30-90 minutes and was audio recorded. The Chief Investigator did not make field notes during the interviews. Field notes could have been distracting to the participant and would have been distracting to the Chief Investigator, who wanted to focus on what the participant was saying, so that points of interest could be explored deeper with the participant. Making field notes can affect the flow of an interview, so field notes were made post-interview and used in

conjunction with the interview transcriptions during data analysis (Halcomb and Davidson, 2006).

In qualitative research, the presence of the Chief Investigator during the interview means they affect the data collection process and hence this must be explored and acknowledged. All participants at Phase 4 knew the Chief Investigator was a nurse teacher and registered nurse and must therefore have also known that she would have been a newly qualified nurse at some point. All the participants also knew from the Phase 1 session that the Chief Investigator had a keen interest in the education of nursing students and the experiences of newly qualified nurses. These factors appeared to the Chief Investigator to assist participants to speak freely during the interviews. Participants frequently used medical and nursing terms and made reference to patterns of working within healthcare organisations without explaining them because they assumed a shared understanding. One of the limitations of interviews can be that the participant and the interviewer struggle to understand each other's meanings (Newell and Burnard, 2011). However, this perceived shared understanding appeared to the Chief Investigator to be positive and enabling, rather than prohibitive on the qualitative data collection process. It was possible that by knowing the Chief Investigator the participants were impeded from speaking openly and honestly. This was not the impression received. No participant appeared uncomfortable or refused to answer a question.

4.5 Pilot Study

Ideally, all aspects of a study should be piloted (Oppenheim, 1992). McColl *et al.* (2001) strongly recommended the use of a pilot study when a questionnaire contained questions or scales that had not been used together before or had never been used on the target population. In these circumstances a pilot study provides both face and content validity and highlights any need for amendment (McColl *et al.* 2001). Drawing from these recommendations, a pilot study was undertaken because the package of questionnaires in this research was entirely made up of published questionnaires that had not been developed using newly qualified nurses and had not been used together before. Furthermore, the package of questionnaires

contained extra questions specifically written for this research. The pilot study not only enabled the package of questionnaires to be trialled, but it enabled all facets of the research to be assessed and amended as necessary.

Watson, Atkinson and Rose (2007) argued that studies should only be called a pilot where it clearly corresponds to the pilot study criteria outlined by van Teijlingen and Hundley (2002). Table 4.9 demonstrates that the small scale study undertaken in this research was a pilot study as it shared many of the underlying reasons for a pilot study that van Teijlingen and Hundley (2002) listed.

Robinson and Marsland (1994) reported the use of a pilot study preceding each of the five phases of data collection of their longitudinal investigation of nursing careers. Their pilot was to test the effectiveness of recruitment and retention strategies that would be crucial in their research. An extensive pilot study was conducted in the current research which, like Robinson and Marsland (1994), preceded each phase of the main research phases for the first sample cohort (Cohort B) (see Table 4.1).

While this piloting strategy meant that every phase of data collection could be tested to ensure it was fit for purpose, the pilot group (Cohort A) was only six months ahead of Cohort B. The pilot group would not have completed all four phases before Cohort B consented to participate. If a major design flaw had been identified in Phases 2, 3 or 4 as part of the piloting process, this would have been problematic as Cohort B would have already consented to take part in research that fundamentally needed to change. It was regarded as a necessary risk, which fortunately did not come to fruition.

The purpose of the pilot study was to test with feedback all four phases of the research design including all paperwork and electronic versions using a sample that was comparable to the intended research sample. The pilot sample was one cohort of adult branch nursing students based on one of the two campuses where the HEI provided the programme. Given the purpose of the pilot study, a sample size of $n = 25$ was required (Hertzog, 2008). Twenty-seven participants were actually recruited for the pilot study.

Table 4.9 Comparison with van Teijlingen and Hundley (2002) pilot study criteria

Reasons why a pilot study should be conducted (van Teijlingen and Hundley, 2002)	If the reason was pertinent to this research
Developing and testing adequacy of research instruments	Yes
Assessing the feasibility of a (full scale) study/survey	Yes
Designing a research protocol	No – but it did lead to refinement of the original research protocol
Assessing whether the research protocol is realistic and workable	Yes
Establishing whether the sampling frame and technique are effective	Yes
Assessing the likely success of proposed recruitment approaches	Yes
Identifying logistical problems, which might occur using proposed methods	Yes
Estimating variability in outcomes to help in determining sample size	Yes
Collecting preliminary data	Yes
Determining what resources (finance, staff) are needed for a planned study	Yes
Assessing the proposed data analysis techniques to uncover potential problems	Yes
Developing a research question and research plan	No – but it did lead to refinement of the original research questions and research plan
Training a researcher in as many elements of the research process as possible	No – but it did lead to personal development for the Chief Investigator
Convincing funding bodies that the research team is competent and knowledgeable	No – not applicable to this research
Convincing funding bodies that the main study is feasible and worth funding	No – not applicable to this research
Convincing other stakeholders that the main study is worth supporting	No – but it did provide supportive evidence for the HEI where the research sample was to be recruited

At Phase 1, the purpose of the pilot was to test the initial recruitment strategy, test the participants' ability to complete the 'Participant consent form' (see Appendix 7) and the package of questionnaires, as well as gain their feedback on these together with the 'Participant information sheet' (see Appendix 8) and recruitment presentation. Their written as well as verbal feedback during Phase 1 provided insight into how well they understood the purpose of the research, if there was anything about the research that made them nervous of participating and if there were any instructions or questions in the package of questionnaires they did not understand. Overall, their feedback was overwhelmingly positive about the intentions of the research and their understanding of the paperwork. An interesting concern some participants raised was with reference to some questions in the COPE Inventory that related to the use of drugs and alcohol as a coping strategy. Participants questioned if by indicating that they did use this strategy to cope, would they have to be reported to their employer or the NMC? Participants were reassured this would not be the outcome and this issue was subsequently included in the recruitment presentation.

At Phase 2, the purpose of the pilot study was to determine if the electronic version of the package of questionnaires was as effective as the paper version used at Phase 1 and to gain insight into potential participant attrition. The participants received the package of questionnaires via email or post according to the preference they indicated at Phase 1. Twenty-two participants (81%) opted to receive the package of questionnaires electronically, of which fourteen participants (64%) responded at Phase 2. The electronic data they submitted were completed as fully as the paper version suggesting it was a comparable method for collecting data.

Participants that did not respond after the planned four week reminder were telephoned to see if they would share why they had not responded. The telephone follow-up with two participants revealed that they were not currently employed as a nurse and therefore thought they were not eligible to complete the package of questionnaires, though they were willing to do so. This feedback highlighted that the covering letter needed to be amended to instruct participants that they could still complete the package of questionnaires irrespective of whether they were/were not employed as a qualified nurse. Furthermore, the Phase 2 package of questionnaires

needed an additional box so that a participant could indicate that they were not currently employed as a nurse. There were also some sections of the package of questionnaires that should only be answered if the participant was employed as a nurse, such as the section on stressors experienced as a nurse, so some section instructions needed to change. Similar changes were required in the Phase 3 package of questionnaires to cover the same situation.

Piloting of Phase 4 enabled the intended interview questions to be tested to ensure they were understandable and generated appropriate responses that would serve to answer the research questions. It also provided a more realistic estimation for how long the interview would last (Grove, Burns and Gray, 2013). This was important in assisting future participants at Phase 4 with personal time management.

The pilot process established confidence that the topic of the research was interesting to potential participants, it could be recruited to in sufficient quantity and those numbers could potentially be adequately retained across phases. The design of the research contained no problematic areas where data to address the research aims and questions would not be generated. Specifically, the five main questionnaires contained within the package of questionnaires required no amendment. Likewise, the interview schedule using the semi-structured format produced sufficient and appropriate data and did not require amendments. Minor issues with the documentation were identified and rectified through two amendments to the original ethical approval (see Section 4.8 and Appendices 13 and 14).

On completion of all four phases of the pilot study, the changes that had resulted from the process were minor. In addition, the pilot group was comparable to participants recruited to the main research. They had undertaken the same nurse education programme. They had been recruited to a research study that had essentially remained unchanged and had completed all four phases of data collection using instruments that had essentially remained unchanged. It was therefore decided post-pilot that all the data the pilot group had provided should be included in the dataset. This was regarded as acceptable because major changes had not been required to the research design (Watson, Atkinson and Rose, 2007) and the research contained established, validated and unchanged questionnaires (van Teijlingen and

Hundley, 2002). This was permissible within the original ethical approval and also added even greater value to the contribution the participants had made to the research (see Section 4.8.4).

4.6 Recruitment and retention strategies

Incorporating recruitment and retention strategies is highly recommended when carrying out any longitudinal research (Robinson and Marsland, 1994; Mein *et al.* 2012). The risk of attrition increases with each data collection phase and the length of time between each phase (Watson, 1998; Bowling, 2014). Therefore, as a longitudinal study, why people volunteer to take part in research was considered together with specific planning and deployment of recruitment and retention strategies.

Some people volunteer to participate in research for altruistic reasons; for example, they believe their contribution will help others that suffer from the same disease (Harcombe *et al.* 2011) or they belong to the same societal subgroup (Mein *et al.* 2012). However, for others it is for implicit or explicit reciprocity whereby they can personally gain from participation. This was the outcome reported by Mein *et al.* (2012) from their study of why Civil Servants had participated in the Whitehall II study that has now been running for over twenty-five years. They found that participants remained actively engaged with the research because they felt they personally gained from participation. They had contact with experts, they received a free medical examination, they had contact with former colleagues when attending examinations and they received regular updates on the outcomes of the research, which promoted a sense of commitment to the research. There were therefore both tangible and intangible benefits to participation.

In the present study, all adult branch nursing students in a cohort that were about to complete their nurse education at one HEI in South East England were eligible to be recruited to the research. Targeting nursing students on the final day of their nurse education, so that they equated to newly qualified nurses is a strategy that has been used in previous research (Watson *et al.* 2009). The adult nursing education

programme at this HEI had two cohorts or intakes of nursing students per year: March and September. The HEI delivered the programme on two campuses. When students joined a cohort, approximately half were permanently based at one campus and the other half of the cohort was permanently based at the other campus. Therefore, Phase 1 recruitment had to occur twice, once on each campus, in order to secure involvement from an entire cohort of nursing students.

Robinson and Marsland (1994) reported the recruitment and retention strategies that they used in their four year longitudinal study of nursing careers that commenced from the point of qualification. Their study aimed to recruit and retain 1,500 newly qualified nurses from colleges of nursing in three regional health authorities in England from September 1990 to August 1991. Robinson and Marsland (1994) actually managed to recruit $n=1164$ newly qualified nurses. At six months post-qualifying, they had retained 76% of their initial sample and at twelve months post-qualifying, they had retained 65%. The insights they provided were used to inform the recruitment and retention strategies employed in this research along with the findings from other research.

Robinson and Marsland (1994) gave a presentation to their potential participants. They did this as a way of fostering interest and commitment in their research, circulating an information sheet about the research and being present to answer questions and concerns. It also gave them the opportunity to impart what they regarded as key information such as if the newly qualified nurse left the profession they were still vital to their research. The presentation culminated with the audience being given a form to complete if they wanted to participate. This form was an expression of the nursing student's intention to participate along with their contact details. Robinson and Marsland (1994) found from their piloting process that they could achieve higher response rates by posting the first questionnaire to the nursing students who had agreed to participate at the presentation than by nursing students completing the questionnaire at the time of the presentation. Finally, two researchers remained in the room while the nursing students were completing the form. They did this for two reasons. First, if a nursing student decided to leave the room, one of the researchers could talk to them to try and persuade them to stay and participate. Second, by remaining in the room while nursing students were completing the form,

they were still available to answer questions and address concerns. They noted that by doing this they had observed some nursing students complete the form where they had originally appeared to opt not to complete it. Hence, being present in the room increased recruitment rates.

Some of the strategies utilised by Robinson and Marsland (1994) to recruit participants were used in a modified way in the present research. Some strategies were not adopted on the basis that they were potentially unethical and coercive. The current research was advertised to the whole cohort four weeks prior to the Phase 1 presentation/recruitment/data collection session via the students' intranet. The 'Participant information sheet' (see Appendix 8) was attached to the communication. This was done so that potential participants had the advanced opportunity to read about the research and ask anybody for additional information and advice, rather than giving it to them for the first time in the Phase 1 session.

A presentation was used to create interest in the research ahead of recruitment. In the presentation, altruistic along with implicit and explicit reciprocity themes were incorporated in an attempt to appeal to a range of potential motivators held by the nursing students; for example, participation had the potential to assist future nursing students and newly qualified nurses (altruism), the nursing students could learn about the research process by being part of it and eventually see it published (implicit reciprocity) and the nursing students would be given a 'certificate of research participation' for their professional portfolio (explicit reciprocity) (see Appendix 9).

Robinson and Marsland (1994) had learnt from their pilot study that the presentation should not be scheduled for a Friday and the nursing students should be made aware of how long the session would last. The Phase 1 session in the present research was always scheduled for midweek and always appeared on the student's timetable of activities for the last day of their nurse education programme. The pilot study in the current research had shown that the package of questionnaires took 20-40 minutes to complete, so the session was always booked for a minimum of one and a half hours to allow plenty of time for the presentation, questions and then paperwork completion.

In the Phase 1 session all nursing students were offered the 'Participant information sheet' in case they had not read the online version. This was to ensure there was informed consent to participate. At the same time, they were given the 'Participant consent form' (see Appendix 7) and the package of questionnaires (see Appendix 3) to complete if they wanted to participate. Despite the pilot outcome of Robinson and Marsland (1994), it was felt that completing all paperwork during the Phase 1 session would enhance participation, rather than posting the package of questionnaires to participants after the session and risk a loss of initial enthusiasm to participate.

The Chief Investigator remained in the room answering questions or talking generally to the nursing students during paperwork completion. Unlike Robinson and Marsland (1994), the Chief Investigator did not attempt to dissuade any nursing student who wanted to leave the room for any reason. The Chief Investigator also remained in the room to supervise the handing in of the paperwork, specifically checking that the 'Participant consent form' had been completed in full and that the contact details on the front of the package of questionnaires were completed and legible. In turn, the Chief Investigator gave the participant a 'certificate of research participation' that had their name handwritten and signed (see Appendix 9).

For recruitment to the Phase 4 interview, participants that returned the Phase 3 package of questionnaires without the need for a reminder were subsequently invited to participate in Phase 4. Participants were invited by receiving a letter and a copy of the 'Participant information sheet - interview stage only' (see Appendix 10) via their preferred route of contact. Participants were instructed to contact the Chief Investigator if they were willing to be interviewed and the Chief Investigator would contact them to arrange an interview appointment at a campus that was convenient to them, where they would read and complete the 'Participant consent form - interview stage only' (see Appendix 11). Once the required number of interviews had been achieved per cohort, participants were aware that the Chief Investigator would acknowledge their reply to the interview request, but they would not be interviewed. However, excess numbers of participants did not reply, so this clause was not actioned.

After the initial point of qualification questionnaire, Robinson and Marsland (1994) collected data at six months, twelve months, two years and five years post-qualification. On each occasion they posted the questionnaire with a stamped/addressed return envelope accompanied by a letter thanking the participant for returning previous questionnaires and an update on the progress of the research. They then had three follow-ups for non-responders per phase. Each follow-up consisted of a letter and a duplicate copy of the questionnaire as they felt from previous research that this was more effective than just sending a letter. Robinson and Marsland (1994) stated that their strategy of three follow-ups increased the response rate by 20%, 10% and 4% per follow-up making the use of time and resources justifiable to promote retention in their research.

In the present research, participants at Phase 2 and Phase 3 were emailed or posted a letter thanking them for their previous involvement with the research to accompany the package of questionnaires, similar to the strategy used by Robinson and Marsland (1994). The mode of communication used followed their stated preference at Phase 1 (92% indicated a preference for email). If the paperwork was posted, a stamped/addressed return envelope was included so that the participant would not incur any financial cost, which may also lead to attrition. Only one follow-up specifically scheduled for four weeks later was utilised for non-responders. This was because it was deemed crucial that data were collected as close as possible to the participant being six months or twelve month post-qualified. If more than one follow-up was employed as with the Robinson and Marsland (1994) study, and it took the participant several months to complete the package of questionnaires, there was a risk that it would no longer be a true reflection of their status at the intended time point. Robinson and Marsland (1994) did not acknowledge this potential risk or what the time lapse was between each follow-up. They also did not acknowledge if there was any cut-off point for receiving data associated with a particular phase.

In the current research, the cut-off point for Phase 2 was when the participant had been qualified for nine months. Beyond this the participant was closer to being twelve months post-qualifying than six months post-qualifying. Four participants fell into this category having submitted the Phase 2 package of questionnaires at ten and eleven months post-qualifying. Their Phase 2 data were excluded, but the

participants were contacted at twelve months post-qualifying for Phase 3 data collection. This illustrates a difficulty in longitudinal research where if the data collection points are relatively close together, as in the present study, a delayed response means data are being requested for the next phase when the previous data has only just been submitted (Watson, 1998). However, three out of the four participants did complete Phase 3, so it did not contribute to Phase 3 attrition. A similar cut-off point was set for the twelve months post-qualifying data (set at fifteen months post-qualifying), but no participant exceeded this. Therefore, there were no data excluded at Phase 3.

The use of email to deliver the package of questionnaires to participants has notable cost savings and logistical benefits compared to posting paper versions (Fleming and Bowden, 2009; Touvier *et al.* 2010). This was an important consideration given 288 participants needed to be contacted potentially twice at Phase 2 and the same at Phase 3. Additionally, as can be seen in Table 4.1, many of the data collection phases for the cohorts occurred at exactly the same time. Furthermore, the electronic format provided participants with a quicker method of completing and returning the package of questionnaires compared to the paper version in Phase 1 (McColl *et al.* 2001; Windle and Rolfe, 2011). These were the assumed advantages aimed at promoting retention.

Finally, being able to give a ‘certificate of research participation’ to nursing students was a recruitment and retention strategy (see Appendix 9). It was an attempt at offering potential participants something tangible for participating, explicit reciprocity according to Mein *et al.* (2012). However, it was also devised for retention in that it contained the title of the research and the Chief Investigator’s name and contact details. It was a method of reminding participants of their involvement and hopefully commitment to the research and if they had questions or needed repeat documents, they had contact details.

4.7 Sample

As described previously in how participants were recruited (see Section 4.6) the sample consisted of all adult branch nursing students at one HEI. The nursing students were recruited on the last day of their nurse education from three cohorts, located on two campuses, plus the pilot group from one cohort located on one campus. This equated to a population of $n = 588$ newly qualified nurses, all of whom were invited to take part.

In quantitative research, consideration of the necessary sample size to ensure appropriate accuracy of the estimates is recommended. This is done in order to ensure that studies have a realistic chance of providing results from which conclusions can be generalised to the wider target population. Although it was not practically possible in this study to increase the population from which the participants would be drawn, it was still helpful to consider whether the sample was likely to be large enough to produce estimates of sufficient accuracy to be useful. For example, would this study be large enough to estimate with sufficient accuracy the proportion of newly qualified nurses that experienced work-related stress and hence provide a useful indication of the prevalence of work-related stress?

In order to calculate the sample size necessary to estimate the prevalence of work-related stress using a survey study design, three factors must be specified. First, it is necessary to specify the level of confidence to be used for confidence intervals. This is the probability that the estimate is close to the true but unknown prevalence, which most commonly is 95%. Second, it is necessary to specify how precise the estimate should be, the margin of error, which is often expressed as the width of the confidence interval or as a percentage of the estimate. Many surveys express this as an accuracy of $\pm 3\%$, which is a confidence interval with width covering 6%, or $\pm 5\%$. Third, it is necessary to have some idea of the prevalence in the population under study, perhaps from another study of a similar population or just an “*intelligent guess*” (Machin *et al.* 1997).

To make inferences about a binary variable such as presence or absence of work-related stress, or about the proportion of individuals in the sample that have work-

related stress, binomial distribution is used. 'X', the number of individuals in the sample with stress, will follow a binomial distribution with parameters ' π ', the prevalence that is trying to be estimated and 'n', the sample size. Statistical theory shows that provided 'n' is large and ' π ' is not very small, then the binomial distribution can be reasonably approximated by a normal distribution with mean ' $n\pi$ ' and variance ' $n\pi(1-\pi)$ ' (Armitage and Berry, 1994). Using this normal approximation provides a simpler method for calculating a 95% confidence interval. Inversion of this formula and specifying the width of the confidence interval enables calculation of the sample size necessary to achieve a confidence interval of the specified width. This leads to the sample size being:

$$n = Z_{1-\alpha/2}^2 \pi(1-\pi) / \omega^2$$

where ' $Z_{1-\alpha/2}$ ' is from a normal distribution and will be 1.96 if the level of confidence is 95%, ' π ' is the prevalence and ' $\pm\omega$ ' is the interval width. As the prevalence was unknown, the 'intelligent guess' is used, ' p ', in place of ' π ' in the formula. Machin *et al.* (1997) provide tables that give the calculated value for 'n' for a range of possible confidence levels, interval widths and values of prevalence.

There was no suitable previous newly qualified nurse stress literature to draw from, so using the survey of NHS staff in 2007 that found 33% reported experiencing work-related stress (The Commission for Healthcare Audit and Inspection, 2008), 0.33 is an estimate of stress prevalence that would be an 'intelligent guess' to use in the sample size calculation. Therefore, the size of the sample required for a confidence level of 95%, a confidence interval width of $\pm 5\%$ and $p = 0.33$ is:

$$n = 1.96^2 \times 0.33 \times (1-0.33) / 0.05^2 = 340 \text{ participants}$$

If a width of $\pm 10\%$ is considered, the size of the sample required would be 85 participants, whilst for a width of $\pm 3\%$, the size of the sample required would be 943 participants.

Considering the results of these calculations, if the true prevalence of work-related stress in newly qualified nurses is approximately 33%, then with a moderate response rate of 60% in the survey, a sample size of 340 was achievable from the invited population of 588 graduating students. Therefore, the present study had a realistic chance of estimating the prevalence of work-related stress or the prevalence of

another similar binary feature to within $\pm 5\%$ accuracy. Furthermore, the present study does consider a number of categorical sources of stress and assess the frequency with which they occur.

Table 4.10 shows the number of participants that completed each phase of data collection. In summary, $n = 288$ nursing students (newly qualified nurses) were recruited at Phase 1, the point at which they qualified. This constituted 49% of all nursing students that could have been recruited. At Phase 2, six months post-qualifying, factoring in four participants that had responded after nine months post-qualifying and therefore beyond the set cut-off point (see Section 4.6), $n = 107$ responded: 37% of the Phase 1 sample retained. At Phase 3, twelve months post-qualifying, $n = 86$ participants responded, with no participant responding after the fifteen months post-qualifying cut-off point: 30% of the Phase 1 sample retained. Furthermore, $n = 67$ completed Phases 1, 2 and 3. Of the Phase 4 participants that participated in an interview, twelve out of fourteen had completed all three previous phases.

Table 4.10 The sample: the number of participants at each phase

Cohort	Phase 1	Phase 2	Phase 3	Phase 4
A (pilot)	27 (84)*	19	17	3
B	87 (206)*	32	23	4
C	74 (118)*	30	24	5
D	100 (180)*	26	22	2
Total	288 (588)*	107	86	14
*Total number of students that were eligible to be recruited				

The Phase 4 sample were a convenience sample as it consisted of participants from the original Phase 1 sample and a purposive sample, as the participants would be able to provide data that aided answering the research questions (Grove, Burns and Gray, 2013). The recruitment aim had been three to six participants per cohort including the pilot group, hence twelve to twenty-four interviews. This aim stemmed from Guest, Bunce, Johnson (2006), who found from their investigation that twelve interviews were likely to achieve data saturation, while Grove, Burns and Gray (2013) suggested a range of twelve to twenty-five interviews, depending on the

nature of the research, was likely to be sufficient. Fourteen participants volunteered and were subsequently interviewed, spanning all four cohorts involved in the research. An additional two participants had indicated their willingness to be interviewed, but then failed to book an interview appointment.

4.8 Ethical approval

The Research Ethics Committee for the HEI where the research was conducted approved the research proposal in January 2010 (see Appendix 12). Following Phase 1 and Phase 2 of the pilot study, small amendments were made to some of the documentation requiring Chair's Action in July 2010 and April 2011 (see Appendices 13 and 14). There were some specific ethical issues that were considered and planned for in this research.

4.8.1 Ethical considerations

There are four principles of ethics that stem from the Nuremberg Code that should be evident and upheld in all research: autonomy, beneficence, non-maleficence and justice (Newell and Burnard, 2011). These were all given equal prominence in this research, rather than suggesting that one was more important than the others (Gillon, 2003; Newell and Burnard, 2011). Examples of their incorporation were: participants were told they could withdraw from the research at any time without the need for explanation (autonomy), all participants were given a 'certificate of research participation' for their portfolio (beneficence and justice), and all participants were debriefed after their interview to ensure their well-being (non-maleficence).

There were additional ethical considerations incorporated into this research. Consideration was given to the fact that the Chief Investigator was known to the students on one campus, as they would have been taught by the Chief Investigator in the second year of their nurse education. This was not considered an ethical conflict as the Chief Investigator would not have taught them for at least one year prior to recruitment and had no influence over whether they successfully completed their

nurse education. However, it is acknowledged that it may have been a factor in recruitment and retention.

Ethical consideration was also extended to the authors of all five published questionnaires that were used in the package of questionnaires. Each was contacted to gain their written consent to use their questionnaire. Any related copyright requests were followed in full (see Appendix 2).

4.8.2 Anonymity and confidentiality

Anonymity in research refers to the participant's right to not be identifiable to others (Farrimond, 2013). Complete anonymity could not be offered to participants for two reasons. First, participants were recruited at Phase 1 in a presentation session for an entire cohort based at each campus. While participants were at liberty not to attend the session if they did not want to participate, they were also free not to participate once they had heard the session. If the participant did participate by completing the paperwork, those around them in the classroom would have witnessed this and hence knew they had chosen to participate. However, their continued participation in the subsequent phases would have been anonymous to other participants.

Second, the participant could not be anonymous to the Chief Investigator.

Anonymity would have prevented tracking participation at each phase and targeting follow-up data requests for non-responders (McColl *et al.* 2001). The ability to do this was a requirement of this cohort study. However, anonymity was given to all participants from Phase 1 onwards in that they were assigned a code by the Chief Investigator. This code consisted of the letter assigned to the participant's cohort (A-D) followed by a unique number 1-288. For example, D193 means: cohort D, participant number 193. Each participant's name and the code they were assigned was stored in an electronic file, but only their code was used in datasets and in this thesis.

The principle of anonymity was also applied to all qualitative data where a person or organisation was named. In such instances the name was replaced with '*name of*

hospital’ or *‘name of person’* so the context was preserved, but anonymity was protected.

Confidentiality in research is concerned with not sharing data about the participant beyond what has been consented to (Farrimond 2013). All written data were stored in locked cupboards that were only accessible by the Chief Investigator (McColl *et al.* 2001). All electronic data were stored on a password protected computer and complied with the legal conditions required for the storage of personal data that is not anonymized such as being limited, accurate and relevant (Farrimond, 2013).

Ethical consideration was given to the fact that the participants and the Chief Investigator were registered nurses and hence had a professional responsibility to safeguard the public and uphold professional nursing standards (NMC, 2008b; NMC, 2010a; NMC, 2015). If the participant declared something at any phase of the research, which the Chief Investigator felt had professional or safeguarding implications, the Chief Investigator was obliged to discuss it with the participant and together a decision would be made whether NMC and/or Trust policies and procedures would need to be invoked. This requirement was explicitly written in the ‘Participant information sheet’ (see Appendix 8) and the ‘Participant information sheet - interview stage only’ (see Appendix 10) and stated both verbally and visually during the Phase 1 recruitment presentation. Therefore, this requirement to breach confidentiality due to professional obligations was made explicit to participants prior to them consenting to take part in the research (Farrimond, 2013). In actuality, participants did share incidences of poor and highly concerning practice during the Phase 4 interviews, but on very careful consideration NMC and/or Trust policies and procedures were not invoked. This was because concern had already been raised or actions taken regarding the practice at the time of occurrence.

4.8.3 Managing vulnerability during the interview

Interviews have the ability to be therapeutic, but for others it may cause the release of emotions (Grove, Burns and Gray, 2013). At Phase 4, the Chief Investigator was extremely conscious that the participants might share experiences that were

distressing. The participants were expressly informed that they could say they did not want to answer a question, take a break during the interview or terminate the interview without the need to explain. Indeed, participant A24 became tearful on recalling an incident and was immediately offered a break.

“Are you all right, do you want to take a break?” Chief Investigator

[Suddenly tearful] “No, I’m all right. I just didn’t think it would still get me like this, do you know what I mean? I didn’t expect to feel like that because it was when... Yeah, a year ago, isn’t it. I’ve not really got like this since.”

A24

Coolican (2014) stated that a participant who has taken part in an interview should think and feel the same about themselves after the interview as they did before the interview, and that debriefing post-interview is a strategy that can be used to achieve this. In the current research, immediately after each of the interviews, the Chief Investigator talked to the participant as an informal debrief to manage any potential distress that had been caused.

4.8.4 Valuing participation

There were minimal overt benefits for participants who volunteered to take part in this study. Participants did get a ‘certificate of research participation’ at Phase 1 for their portfolio. Additionally, all data collected from Cohort A, the pilot group, was incorporated into the overall dataset to further increase the value of their participation (see Section 4.5).

4.9 Data analysis

Inputting or producing data for subsequent analysis from the quantitative and qualitative methods used required specific approaches that were appropriate for the method (Kinn and Curzio, 2005). Analysis of the mixed data required another, different approach.

4.9.1 Quantitative data analysis strategy

Numerical data from the package of questionnaires at each Phase was inputted to 'IBM SPSS Statistics 21'TM, which was subsequently used for all analyses. Pigott (2001) detailed a range of strategies that can be utilised to deal with missing data, though all are based on various assumptions, which were not considered appropriate in the current study. Therefore, missing data were not replaced in any of the analyses that were undertaken. Descriptive statistical analyses were performed to describe the sample in detail. Distribution analysis was undertaken for all scales and subscales by checking skewness, kurtosis, histograms and boxplots (Pallant, 2013). Additionally, the minimum acceptable significance level was set at $p \leq 0.05$ and the 'confidence interval' set at 95% (Crichton, 2001).

The outcome of the distribution analyses determined whether parametric or non-parametric tests were used in the subsequent analyses. Total stress and subscales, total hardiness and subscales and resilience were all normally distributed and parametric tests were used. Conversely, coping subscales and overall support index and subscales (functional social support) were not normally distributed and non-parametric tests were utilised.

Age was analysed in relation to stress, hardiness and resilience using 'Pearson product-moment correlation coefficient' and the non-parametric equivalent 'Spearman's rank order correlation' for coping and functional social support. Healthcare experience from employment prior to the participant commencing their nurse education and the nursing qualification the participant entered nursing with was analysed in relation to stress, hardiness and resilience using an 'independent samples t-test' and the non-parametric equivalent 'Mann-Whitney U' for coping and functional social support.

Only normally distributed, longitudinal data can be analysed using a 'one-way repeated measures ANOVA' (Azuerro *et al.* 2010). Therefore, this test was applied to stress, hardiness and resilience to determine change between each time point over twelve months. Only complete datasets should be included in a 'one-way repeated measures ANOVA', otherwise there is an increased risk of bias and skewed results

(Son, Friedmann and Thomas, 2012). Consequently, only complete datasets were used in these analyses. Furthermore, in acknowledgement of the number of tests involved in this type of analysis and the risk this carries for a 'type one' error, Bonferroni adjustments were included in the procedure (Coolican, 2014). The 'Friedman Test', the 'one-way repeated measures ANOVA' non-parametric equivalent was used on the coping and functional social support data to determine change between each time point over twelve months (Pallant, 2013). Only complete datasets were used in these analyses.

Attrition bias in longitudinal research is a serious concern as it can reduce external validity (the end sample is unrepresentative of the original sample) and internal validity (correlations between variables using the end sample would not have been true for the original sample) (Miller and Hollist, 2007). Consequently, non-responders at Phase 2 and/or Phase 3 and those with incomplete datasets were examined to determine if they were significantly different at Phase 1 from those that did participate throughout and have a full dataset. Participants with full datasets were removed from the whole of the Phase 1 data for this comparison. This comparison was undertaken for stress, hardiness and resilience.

The relationship between total stress and hardiness and subscales, and total stress and resilience was examined using a 'Pearson product-moment correlation coefficient'. The relationship between total stress and each coping subscale, and total stress and overall support index and subscales (functional social support) was examined using the non-parametric 'Spearman's rank order correlation'.

4.9.2 Qualitative data analysis strategy

Responses to the open-ended questions that featured in the package of questionnaires at all three Phases were extracted and recorded exactly as written on computer files. The participant's identity code, as explained in Section 4.8.2, was recorded against each entry.

The first two Phase 4 pilot interviews were transcribed verbatim by the Chief Investigator. All subsequent interviews were transcribed verbatim by a professional transcribing company because of the time-consuming nature of transcribing long interviews. Verbatim or orthographic transcription style was used as it was sufficient to record what each participant said given that it would be analysed using thematic analysis (Braun and Clarke, 2013). All transcripts were checked against the recorded interviews and amendments made where necessary. This was undertaken to ensure the transcripts were an accurate account of the interviews and it commenced the first stage of the thematic analysis process that was utilised to analyse the data, namely familiarisation with the data (Braun and Clarke, 2006). The data and the subsequent extraction of quotes were not corrected or edited for errors in English language in order to retain the authenticity of how and what the participants had communicated (Braun and Clarke, 2013). However, the names of people and organisations were removed and in its place '*name of nurse*', '*name of hospital*' and so forth were inserted so that context was retained, but anonymity was maintained (see Section 4.8.2).

Different approaches to qualitative analysis were considered such as 'framework analysis' (Ritchie and Spencer, 1994), but the approach that was used was 'thematic analysis' (Braun and Clarke, 2006). This approach was selected because it has been widely used in psychology qualitative research and was free from an explicit epistemological rooting, hence it could be applied to many epistemologies (Braun and Clarke, 2006). However, Braun and Clarke (2006) stated that the epistemology of the research still needs to be transparent in undertaking thematic analysis. This was because thematic analysis is a method that identifies and shows patterns in the data. Ultimately, through this analysis strategy the reality for the participants was shown and within this, the nuances of their reality. How reality was thematically described and interpreted was rooted in the epistemology of the research: pragmatism in the case of this research.

Thematic analysis can be inductive or theoretical. In inductive thematic analysis, themes are derived from the data without preconceived ideas. In theoretical thematic analysis, preconceived ideas lead to specific data being targeted, while other data are ignored (Braun and Clarke, 2006). Arguably, even within inductive thematic

analysis some approaches to data collection may lead to an element of theoretical thematic analysis being present as well. For example, in this research, semi-structured interviews were used to collect data related to the research questions. Participants were asked what they found most stressful during their first twelve months post-qualifying. It was therefore pre-determined, theoretical thematic analysis, that newly qualified nurse stressors would be a theme, but the nuances of the theme were inductively derived from the analytical process. No data were ignored in carrying out the thematic analysis process in this current study.

Further evidence to support the view that this research used some elements of theoretical thematic analysis within a predominantly inductive approach was extrapolated from Braun and Clarke's (2006) argument that inductive analysis meant the literature was not engaged with before analysis, but it was engaged with in theoretical analysis. The literature was engaged with in this research, enough to determine what was already known about the transition and stress experiences of newly qualified nurses to identify where gaps in knowledge existed. It further informed many aspects of the research method that was deployed. However, comprehensive engagement with the literature followed the qualitative data analysis, so that themes could predominantly be inductively determined through thematic analysis. The flexibility thematic analysis allowed in choosing to engage or not engage with the literature pre-analysis was in keeping with pragmatism as an investigation of reality should not be confined by dogma (James, 1997a/1907).

The process of thematic analysis proposed by Braun and Clarke (2006) has six stages, though the process involved going back and forth between stages, rather than taking a one directional approach. Appendix 15 provides a description of how the six stage process of thematic analysis was carried out in this research together with an exemplar, 'stress', to show how one set of themes was derived. In summary, from an initial place of immersion in all the qualitative data, codes are produced and grouped to produce themes that are then refined by re-naming, combining and discarding themes to produce distinct themes. These distinct themes have related sub-themes and sub-sub-themes, all of which have illustrative quotes for justification.

As an adjunct to the analysis process specifically for hardiness and resilience, items in the hardiness and resilience questionnaires were used for guidance, so hardiness and resilience were accurately identified within the qualitative data. This was particularly required when an action or a point of view from a participant was analysed that had not been offered in direct response to being asked about their hardiness and resilience. To illustrate why this caution was required; a stressor for some participants was when their self-developed strategy for managing their workload and planning their patient care was interrupted, disrupted or could not be deployed at all (see Section 6.2.2.2.2). This could be interpreted as a low level of ‘challenge’ hardiness. However, it might not be related to how the participant regarded challenges and could simply be that they found disruptions to their daily routine stressful.

4.9.3 Merged data analysis strategy

In analysing the data in a mixed methods study, the data need analysing separately maintaining the characteristics of each: numbers for quantitative data and words for the qualitative data (Sandelowski, 2000). Thereafter, mixed methods interpretation or inferences need to be made from the separate analyses (Creswell and Plano Clark, 2011). One option is data transformation (Creswell and Plano Clark, 2011). Qualitative data can be quantitized by determining the number of times a particular code was recorded or the number of participants associated with a particular theme (Driscoll *et al.* 2007). Quantitative data can be qualitized by describing a participant or group in terms of their quantitative instrument scores (Sandelowski, 2000). While Sandelowski (2000) suggested that qualitized description of a sample commonly occurs, quantitizing qualitative data are more controversial as the necessary ‘thick description’ of qualitative data analysis is difficult to achieve (Driscoll *et al.* 2007).

To maintain the integrity of the separate analyses, the merged data analysis technique of ‘side-by-side comparisons in a discussion’, as opposed to presented in a comparative table, was undertaken (Creswell and Plano Clark, 2011, p. 223). There are three possible outcomes to the analysis: convergence (the same outcome), complementary (a quantitative outcome supplements a qualitative outcome or vice

versa) and divergence (a contradictory outcome) (Östlund *et al.* 2010). It has been argued that congruence in the results from mixed methods is the desired outcome (Yin, 2006), though incongruence in results can be just as valuable (O’Cathain, Murphy and Nicholl, 2010). However, the implication is that all results can be categorised in three ways, but pragmatically, some quantitative and qualitative results may not categorise so neatly, yet still be valuable in producing the most comprehensive understanding of a particular phenomenon. Therefore, in this research, merged data analysis using ‘side-by-side comparisons in a discussion’ was used to identify convergent, complimentary, divergent and standalone outcomes from the separate quantitative and qualitative analyses. These were further synthesised through in depth reflection and interpretation incorporating the model presented in Figure 2.1, consistent with the requirements of ‘interpretive rigor’ discussed in Section 4.2.3.

4.10 Chapter summary

This chapter has discussed how this research was shaped by classic pragmatic epistemology in that the practical consequences of knowing the truth about a particular reality evolves and not through being constrained by doctrines and dogma (James, 1997a/1907). This allowed for the selection of what was regarded as the most appropriate methodology, mixed methods, which in simple terms enabled the questions ‘how’ and ‘why’ to be asked through the use of quantitative and qualitative instruments within a complex method. This was regarded as the best approach to understand the reality for the newly qualified nurses that were recruited to address the research aims and questions.

This research, the first of its kind, took a longitudinal approach to examine the transition of newly qualified nurses with a focus on their stressors and stress experiences, coping strategies, structural and functional social support, hardiness and resilience. Full ethical approval was gained to conduct the study with anonymity, confidentiality, managing vulnerability during the interviews and valuing participation all deliberately woven into the plan. As a longitudinal investigation, it was crucial to consider recruitment and retention strategies because of the known

risk of attrition. Previous longitudinal research was scrutinised and strategies were utilised in a bid to maximise the size of the sample at each phase.

There were four phases of data collection. Quantitative data were collected at the point of qualification (Phase 1), six month post-qualifying (Phase 2) and twelve months post-qualifying (Phase 3). Qualitative data were collected at twelve months post-qualifying (Phase 4). Each phase was preceded by a pilot study to test all procedures and instruments. The quantitative data collection instrument was a package of questionnaires, while the qualitative data collection instrument was a one-to-one semi-structured interview.

The sample in this research was recruited from one HEI in the South East of England. All cohorts of nursing students on the last day of their nurse education were invited to participate from August 2010 to August 2011. The pilot group, recruited in February 2010, were subsequently included in the dataset as the pilot study resulted in no major changes to the method. Consequently, four cohorts of graduating nursing students (Cohorts A-D) were recruited to the research. At Phase 1, the sample was $n=288$: a response rate of 49%. At Phase 2, the sample was $n=107$ and at Phase 3, the sample was $n=86$, thus 30% of the original sample were retained at the end of quantitative data collection. The sample for the Phase 4 interviews was recruited from Phase 3 responders and totalled fourteen participants.

Due to the mixed methods used, quantitative and qualitative data were collected. Quality assurance was given to both methods. The issues relating to validity and reliability were discussed before being applied to the five published questionnaires that were part of the package of questionnaires. This is relevant to the generalisability of the quantitative results. The quality requirements of the qualitative components were discussed in relation to rigour, sincerity, credibility and resonance. This is relevant to the transferability of the qualitative results. Quality assurance was also given to mixed methods with a discussion and evidence for how 'inference quality', 'interpretive rigor' and 'inference transferability' were achieved in the present study.

The data analysis strategies strictly adhered to accepted separate traditions for analysing both types of data: descriptive and inferential statistics for the quantitative data and thematic analysis for the qualitative data. The outcomes of these separate analyses were then merged using the data analysis technique of ‘side-by-side comparisons in a discussion’ to identify convergent, complimentary, divergent and standalone results.

This chapter has described the epistemology, methodology and method that led to the collection of a vast array of data on a large sample of newly qualified nurses. The next three chapters present the results of the comprehensive analysis that was undertaken on the data.

Chapter 5 - Results: Sample descriptors and ‘aspects of transition’

5.0 Introduction

The previous chapter described the pragmatic, mixed methods approach that was utilised in this longitudinal investigation of the transition of newly qualified nurses with a focus on their stressors and stress experiences, coping strategies, structural and functional social support, hardiness and resilience. The results of the investigation are presented in three distinct chapters. In this chapter, a general description of the participants at each phase of the research is presented. This is followed by ‘aspects of transition’, the results of Phase 4 thematic analysis that show aspects of the transition experience reported by the participants. Chapter 6 presents the stressors and stress experiences of the newly qualified nurses as they transitioned and the role coping, social support, hardiness and resilience had in mediating their stress. Each section of these results presents the key outcomes of the quantitative, qualitative and merged data analysis. The final results chapter, Chapter 7, is ‘support in action for the future’, which presents good practice and recommendations that Phase 4 participants made that might help future newly qualified nurses manage transition and work-related stressors based on their experiences. Chapter 7 concludes with a mixed methods synthesis of all the results presented within these three chapters.

5.1 Sample descriptors

5.1.1 Phases 1-3 general descriptors

There were 288 adult branch newly qualified nurses recruited out of a potential population of $n = 588$: a participation rate of 49%. Table 5.1 shows general descriptors for the sample at Phases 1-3. The participants were aged 20-53 years old. The mean age of the participants was thirty-two years, with no significant difference in age identified across the phases. Using an ‘independent samples t-test’, there was also no significant difference between the age of participants that responded at Phase 2 and/or Phase 3 compared to those that did not respond for these two phases.

The age range and mean age of the sample was in keeping with the NMC register, which showed 65% of nurses and midwives were over forty years of age and less than 10% were younger than thirty years old (NMC, 2008).

Table 5.1 Participant general descriptors at Phases 1-3

Descriptor		Phase 1 (n= 288)	Phase 2 (n= 107)	Phase 3 (n= 86)
Age (years)*	Mean (SD)	31.7 (8.0)	31.7 (7.6)	31.8 (7.7)
Gender	Male	29 (10%)	9 (8%)	8 (9%)
	Female	259 (90%)	98 (92%)	78 (91%)
Nursing qualification	Diploma	150 (52%)	43 (40%)	39 (45%)
	BSc	138 (48%)	64 (60%)	47 (55%)
Previous healthcare experience**	No	171 (59%)	62 (58%)	48 (56%)
	Yes	109 (38%)	44 (41%)	36 (42%)
*n= 33 (11%) missing data at Phase 1 **n= 8 (3%) missing data at Phase 1				

The sample consisted of approximately 10% males at each phase. This percentage is similar to the percentage of males on the NMC register (NMC, 2008a; NMC, 2012). The sample qualified from their nurse education with either a Diploma qualification (DipHE Nursing or Advanced DipHE Nursing) or a BSc qualification (BSc Nursing or BSc (Hons) Nursing). At Phase 1, there were a relatively equal number of participants with each level of nursing qualification. However, at Phase 2 and Phase 3 there were more participants who commenced their nursing careers with a BSc qualification. Finally, approximately 40% of participants had healthcare experience prior to commencing their nurse education at each phase. This was almost double the percentage found in previous research (RCN, 2008).

The age of participants at Phase 1 was examined further in terms of any differences in relation to nursing qualification and previous healthcare experience. There was no significant difference between the ages of those that qualified with a Diploma and those that qualified with a BSc. However, there was a significant difference found between the age of those that had previous healthcare experience and those that did not. Participants with previous healthcare experience had a higher mean (SD) age of 34.3 (7.5) years compared to those that did not have previous experience. The

latter group had a mean (SD) age of 30.1 (8.0) years [$t= 2.81$, $df= 249$, $p< 0.01$, 95%CI (-6.12, -2.19)].

5.1.2 Phases 2-3 employment descriptors

At Phase 2, of the 107 participants that responded, $n= 90$ (84%) were employed at the time of completing the package of questionnaires as a Band 5 staff nurse, while $n= 17$ (16%) indicated that they had not worked as a qualified nurse in the preceding six months. The latter participants were excluded from the analysis of stress and structural social support because they could not answer these questions in relation to working as a qualified nurse. (Instructions in the package of questionnaires directed these participants not to complete these sections.) Of the ninety employed participants, five of the participants indicated that they were in their second qualified nurse post. Most had been in their current employment for 3-6 months at the time of completing the package of questionnaires.

At Phase 3, of the eighty-six participants that responded, $n= 78$ (91%) were employed at the time of completing the package of questionnaires as a Band 5 staff nurse, while five (6%) indicated that they had not worked as a qualified nurse in the preceding twelve months and three (3%) indicated that they had worked as a qualified nurse since they qualified, but they were not currently working in that capacity. The five participants that had never worked as a qualified nurse were excluded from the analysis of stress and structural social support for the reasons already stated. Of the seventy-eight participants currently employed, eleven of the participants indicated that they were in their second qualified nurse post. At the time of completing the package of questionnaires, the length of time participants had been working as a qualified nurse was: 14% (1-6 months), 31% (6-10 months), 39% (11-12 months), and 16% (12-15 months).

At Phase 2, 93% of working participants were employed in NHS Trust hospitals with over 95% of them on permanent, full-time contracts. Similarly, at Phase 3, 87% of working participants were employed in NHS Trust hospitals with over 96% of them on permanent, full-time contracts. The majority of participants worked on medical

and surgical wards with a small number of participants working in elderly care, theatres, Intensive Care Units and Emergency departments. Outside of hospital, n= 4 participants at Phase 2 and n= 7 participants at Phase 3 worked in community locations and one Phase 3 participant worked in a nursing home.

5.1.3 Phase 4 general descriptors

All four cohorts of graduating nursing students were represented in the Phase 4 sample (Table 5.2). There were more participants that had qualified with a BSc qualification (71%) and there were more participants that had healthcare experience prior to commencing their nurse education ($\geq 50\%$) compared to the earlier phases of the research. Analysis of the age of participants at Phase 4 showed that their mean (SD) age was 33.5 (8.7) years, hence slightly older, but not significantly different from other phases in the research.

Table 5.2 Participant general descriptors at Phase 4

Participant	Age (years)	Gender	Nursing qualification	Healthcare experience prior to nurse education
A15	40	Female	BSc	Yes
A23	22	Female	DipHE	No
A24	44	Female	BSc (Hons)	No
B56	21	Female	BSc	No
B89	26	Female	DipHE	No
B98	36	Female	BSc	No
B104	32	Female	BSc (Hons)	Yes
C129	45	Female	DipHE	Yes
C133	28	Female	BSc (Hons)	Yes
C138	34	Female	BSc	Yes
C155	unknown	Female	DipHE	Yes
C185	24	Male	BSc	unknown
D266	44	Male	BSc (Hons)	Yes
D283	39	Female	BSc (Hons)	No

All participants were employed at the time they were interviewed predominantly in hospital job locations (Table 5.3). The number of months each participant had been in their job location was determined from their Phase 3 data.

Table 5.3 Participant employment descriptors at Phase 4

Participant	Job 1*		Job 2*		Job 3*	
	Speciality	Months	Speciality	Months	Speciality	Months
A15	Medicine	14				
A23	Medicine	12				
A24	Medicine	6	Community	6		
B56	Medicine	9				
B89	Theatres	12				
B98	Community	9				
B104	Elderly care	12				
C129	Medicine	12				
C133**	Surgical	6	Physical/ Learning disability	1		
C138	Surgical	11				
C155	Surgical	11				
C185***	Community	1				
D266	Community	11				
D283	Elderly care	3	Medicine	6	Medicine	1
*All Jobs were NHS Trust/Primary Care Trust, Staff Nurse Band 5, Full-time, except C133 Job 2, which was Non-NHS, Staff Nurse, Full-time **C133 was unemployed 5 months between leaving Job 1 and commencing Job 2 ***C185 was unemployed 11 months before commencing Job 1						

5.1.4 Comparison of Phase 4 participants to the overall sample

It was important to determine if there was any significant difference between the participants that took part in Phase 4 and all other participants in the research. This was necessary as they may have volunteered to take part at Phase 4 because they represented the extremes of any of the test variables. For example, they may have been excessively stressed or excessively resilient and thus their qualitative data may not have been as representative as might have been expected.

The Phase 4 participants were identified and subgrouped within the Phase 1 and Phase 3 datasets to determine any significant difference at baseline and at twelve months post-qualifying, the same time point as the Phase 4 interview. Comparisons were undertaken using 'independent samples t-tests' for stress, coping, functional social support, hardiness and resilience. There were no significant differences found at Phase 1 or Phase 3. Therefore, Phase 4 participants were not different to all other participants at the point they qualified and at twelve months post-qualifying when they were interviewed.

5.2 Aspects of transition: the personal transition experience

Phase 4 was an opportunity for participants to discuss their experiences over their first twelve months post-qualifying and give their opinions guided by the interview schedule (see Appendix 6). Thematic analysis generated the theme: 'aspects of transition'. These aspects were independent of stressors identified as will be expanded upon in the next Chapter, but the link to stress was implicit in some of the participants' dialogue. The three sub-themes identified were: 'the personal transition experience', 'personal qualities impacting on transition' and 'personal barriers during transition' (see Appendix 16). These sub-themes show how the participants reacted to their new qualified status and passage through a period of transition to achieving a more settled, comfortable state of being a qualified, registered nurse. The sub-themes also illustrate some of the situational issues they faced over their first twelve months post-qualifying that were interpreted from the analytical process as influencing their transition.

There were four sub-sub-themes identified that were part of the participants' personal transition experience: 'need 'just passed' plates', 'affecting the team', 'comparing and being judged' and 'transition duration: the big turning point'. These sub-sub-themes highlight how the participants regarded themselves, particularly early on in their new qualified status as they were consolidating and developing their knowledge and experience as nurses.

5.2.1 Need ‘just passed’ plates

The participants did not always feel like they were a qualified nurse, instead they felt like they were still a final year nursing student. On becoming a newly qualified nurse, they had not changed overnight from being a student.

“I found that I was wearing white on a Monday, on Tuesday I’m in light blue and totally on my own. And it was like, well yeah, but I’m still, I’m just twenty-four hours on from that person I was yesterday. What’s changed experience-wise? Nothing... but I found I was pretty much left to get on with it on the particular ward that I was on.” A24

“...it is a bit like driving really, isn’t it? You get your pass then you go out, but you still need to have your ‘L’ plates on. That’s what we could do with. We could do with some ‘just passed’ plates on.” B98

Similarly, there were no visual indicators to determine that a nurse was newly qualified. However, participant A15 described how they employed strategies to try and hide the fact that they were newly qualified such as deliberately acting confident and hand-picking a patient to undertake their first ever cannulation.

“When you have got your blue dress on you could have been qualified ten years, nobody knows, unless it looks a bit bright, a bit starchy. Other than that there is not much to give it away, is there.” A15

There was a realisation for a few participants that being able to call yourself a ‘newly qualified nurse’ was time limited, something participant A15 had not anticipated. Participants described how they would refer to themselves as new and other nurses would correct them that they were not, after twelve months, new anymore. Participants noticed how the way they were regarded by their team changed as they moved further away from the point at which they had qualified.

“I guess maybe it is the newly qualified thing, there is a time limit when everyone thinks you are not new anymore and then they treat you differently.” A15

“...I wouldn’t mind if anyone phoned me for advice. You know, sometimes they do and that’s a strange thing. You forget sometimes, I mean it is a year now and I still forget that I have been working for a year, registered, fully qualified and people are taking notice. That is a strange thing to come to terms with.” D266

5.2.2 Affecting the team

There was a view from some participants that newly qualified nurses lacked power or status within their team. Participants felt that no-one listened to them, that the opinion of senior nurses carried more weight and that it was only possible to make a difference within a team from a senior position.

“I didn’t feel that anyone was going to take much notice of what I was saying...” A24

“Now I just feel it is not worth it to argue, which is quite hard, because I often think I’m right.” A15

Evident from some participants was the self-belief that they adversely affected their team. They were not able to do all that a more long-serving nurse could do and they could be slow in completing some tasks.

“I think part of it is I don’t want to keep bothering them. They have got jobs to do and I am hindering them if I keep ringing them all the time. That is my feeling...” D266

“If you are going slowly or not so well you feel like you are affecting the rest of the team because you are not doing everything.” A15

A similar overly-critical appraisal of self was evident in the words participants used to describe the questions they needed to ask the staff they worked with. Their questions had the potential to be “silly” or “stupid”. Likewise, the same words were used to describe how the participant may be left feeling by the nature of the response

they received once they asked their question, but for some participants their critical self-appraisal was modified by the response they got.

“I’ve been able to ask questions and I haven’t been made to feel like I should know something or that I’m dumb because I don’t know it, or that I shouldn’t be a nurse because I don’t know it.” C133

“They just make you feel like no question is too silly.” D283

5.2.3 Comparing and being judged

Many of the participants talked to other newly qualified nurses either in their job location, within their organisation or who had been in their nurse education cohort. The focus of their conversations were to make comparisons regarding general experiences, the day-to-day opportunities they had been given, such as being supervised to learn a new skill, the training and courses they had been offered and the preceptorship they had received. Talking to other newly qualified nurses in this context was unrelated to talking as a coping strategy.

“...I heard my other classmates are saying, ‘yes, I had an appraisal after three months.’ I was like, ‘well, I didn’t.’” B89

“We would sort of say to each other, ‘oh, I have done my cannulation course.’ ‘Oh, I haven’t done any yet.’ ‘I haven’t done anything yet.’ So there would be a bit of that. So I was aware that my ward was good for that.” A15

Participants described how newly qualified nurses compared abilities, making judgements about their ability against those of a peer. They also made judgemental and possibly uncivil comparisons on the value of their nursing role within their respective job locations.

“I spoke to one of the other girls that qualified... she said, ‘you’re doing assessments and you’ve done this and you’re doing that.’ She went, ‘they won’t even let me go out on my own yet’ and she’d been out for three months. There was a lot of stuff she wasn’t doing yet that I was doing here.” B98

"I was with all the nurses that I trained with... A lot of them are in A&E and I said, 'oh, I'm in community now' and he went, 'so you're not a proper nurse then.'" A24

5.2.4 Transition duration: the big turning point

Many participants commented on how long they felt it took them to settle into their nursing role. Some participants felt that it took twelve months. At twelve months, feelings were more consistent and they felt more confident. Participants felt more relaxed or less overwhelmed by the gaps they felt they still had in their knowledge, their fear of litigation and losing their NMC registration.

"...those things that aren't stressful that were, you know, now don't faze me at all." B104

"It's just all a learning process. I think really during the first six months to a year of you being qualified, it's just like being a third year again. Well with me being in a new hospital as well, I was always learning new things..." B56

For some participants they started to feel settled at six months. Participant D283 felt that they had got over the "initial shock" and this was despite changing job locations at just three months post-qualifying.

"I'd say the first six months, it felt like a game trying to keep your PIN, that's how it felt. It was this PIN, this sacred thing. Now I feel more relaxed because I think, 'no, hang on, look at it realistically.' If I didn't fill out a reposition chart on an independent man, they're not going to take me to court for that. They're not going to have me in an NMC court and say, 'look, you didn't put that he's sitting.'" A15

"I would say at least six months. After that preceptorship, I thought... because you do learn a lot and it is very in depth... So definitely six or seven months and I think now it is just over a year and I am just there now in all honesty." D266

Participants made reference to when had been the most unsettled time post-qualifying suggesting the initial months were the worst time.

“I would say I probably didn’t sleep well the first couple of months from qualifying. I was always worrying. I was always phoning up and saying, ‘oh, I didn’t tell you this or I didn’t, I don’t think I done this.’” A15

Feeling more settled in their role came for some participants with key achievements, rather than only counting it in time since qualifying.

“...once my medications was out of the way, that was when for me I was like yes, I was confident and then did the IV’s. That was just a bonus for me, that I can actually do IV’s. That was my big turning point.” B56

5.3 Aspects of transition: personal qualities impacting on transition

There were two sub-sub-themes identified that displayed personal qualities associated with progressing through transition: ‘high ideals for self and others’ and ‘desperately wanting to learn’. Both of these demonstrate issues that were inherently important to the participants, but there was not always support for these issues in the participants’ workplace, which had a personal effect.

5.3.1 High ideals for self and others

Participants discussed a range of standards and ideals that appeared to be deeply-held personal views, though they were in keeping with standards required by the NMC (NMC, 2008b; NMC, 2015). Some of these ideals pertained to themselves while others related to how they expected others, predominantly nurses, to behave and perform. The ideals they applied to themselves mostly centred on being able to be the nurse they had wanted to be and delivering the patient care that they had always wanted to be able to deliver once they were qualified. Participants struggled when the environment they worked in conflicted with this ambition.

“What would have made me stay? I just think some appreciation that I was trying to stick to the rules here; that I was trying to do the right thing...” A24

"I just thought, 'how much am I prepared to compromise myself to try and get in with one of these little groups, to try and be safe?' No!" D283

Another ideal evident in participants was they looked out for others, typically nursing students. Participants showed a deliberate commitment to teaching nursing students and passing on tips that they had learnt since qualifying. Participants gave advice on assignments, strategies to aid learning and ways of coping.

"I love having a student with me... They are our next lot of nurses and one of them could very well be working with us one day and you've got to guide them as best you can." A24

"I am quite protective of the students. I don't like it when people are moaning about them. I'm like, 'well give them a chance. Don't just write them off straightaway.'" A15

The only other staff group that participants showed similar protective qualities towards were nurses that were more newly qualified than they were. The actions of the participants often related to adverse events that had occurred to them as a very newly qualified nurse.

"I can see from the new nurses, it's there, they have to ask everyone [to administer intravenous medication]. You almost have to beg and when they ask me, I make sure that I do it straightaway because I remember how I felt." C129

The ideals of the participants seemed to translate into simple and uncomplicated views of nurses. The result was a range of feelings and expressions of disappointment or an inability to explain and justify unacceptable behaviour and actions from those they worked with.

"...as a senior staff nurse you're here to support us, the junior ones. If we don't know something and we come and see you, that's why you're there." B56

"...if I'm doing something wrong, I want someone to tell me because I want to do things the right way. I think that's how everybody should be. We

should be able to have professional disagreements... Personalities play a very big part in nursing definitely. It shouldn't make a difference." B98

There was the feeling among some participants that nurses should not forget that a newly qualified nurse is newly qualified and how it felt when they were newly qualified. In addition, nurses should not forget that there are things that the newly qualified nurse would not have learnt or experienced as a nursing student.

"I just think people need to remember, it's like learner drivers and impatient drivers, you know, you were a learner once. You've got to remember how it feels..." A24

The high ideals held by the participants towards their manager subdivided into their expectations of them as a person and of their leadership abilities. The manager was regarded as someone who should role model high standards of care and behaviour, with "respect" being lost for them when this was perceived as not demonstrated.

"You can't go to a resuscitation call and walk away leaving your newly qualified nurse, who has never been in a resuscitation situation before, to deal with all of it. I mean that's just not right and it is unsafe... I got a feeling it's because she [manager] doesn't know how to cope in that situation." A23

"We had a ward manager, but everyone was walking all over her and I really didn't know that much and I didn't get close to her, because everyone was gossiping and she did encourage that kind of culture." C129

5.3.2 Desperately wanting to learn

This was a very prominent sub-sub-theme for the participants. Participants wanted to learn and develop.

"I've taken the initiative... you go out there, you want to learn..." C185

Participants showed that they had insight into their own knowledge and/or skills gaps and had similar insight into the improvements that they felt they had made over their first twelve months post-qualifying.

“I desperately wanted to get onto a discharge course because that was always an area I found difficult, you know, with the computer and all the paperwork that went with it and making a good discharge.” A24

“Even now you will see that there were lots of gaps to start with and now there are less gaps.” A15

Participants utilised different techniques for addressing their perceived gaps. Some participants used a deliberate, planned strategy to plug the gaps they felt they had such as each day aiming to learn something new. Participants also used self-reflection for self-improvement. Participant C129 used self-reflection when a new manager started making multiple ward changes. It led them to identify in themselves that they had got “comfortable” and they needed to start learning again. Other participants used self-reflection to think about when they needed to ask for help.

“I didn’t have the experience of the wounds and I was reading up, reading up, you know, like you should do.” A24

“It was really annoying how your patient is in pain and there’s nothing you can do... so with me medications was the... I did everything, my first year was medications.” B56

[Participant based in the community] “...you have time to go to one house to the next, reflect, what you could have done differently or what went well, what didn’t go well...” C129

Related to this, participants had to learn about themselves and their own personality including how they fitted into a team and how they affected others in the team.

“I can be quite argumentative, which I’m really trying to curb...” A15

“...it’s you and it’s the people who work with you. It’s not only them, sometimes you know, you yourself can be a difficult person.” C129

Many participants articulated how they had to learn about their team with over half the participants suggesting they identified which members of the team they could approach for meaningful support. For some participants this learning had commenced during their management placement, the final placement during their nurse education, with the same team.

“I knew the people I could go to and I knew the people that I couldn’t.” C155

“...from the whole team there was one, two, probably three nurses that I got on with very well, who I could go and confide in, two HCAs that I was really good friends with... but the rest of the team, no.” C133

Participants provided insight into how they learnt. Participants would formulate and test strategies that they had personally generated. Some would deliberately put themselves in a situation in order to learn how to manage it better. Participants developed strategies for managing relatives, completing their paperwork within their working hours and to defend themselves against incivility directed towards them, most notably from other nurses and their manager.

“No-one’s really given me any pointers to say like how to do it, but I just kind of, I don’t know how, but I found my own way.” C155

“You kind of have in your mind a script of what you can say [to relatives]...” A23

“I think I’ve learnt that I need to stand up for myself a little bit more... I know that if this type of situation arises again [workplace incivility], to nip it in the bud earlier and to be a lot more proactive in seeking help...” C133

Participants described how they adopted strategies for how to deal with situations as offered to them by others. Nurses, and sometimes their manager, offered strategies to some participants such as how to manage and cope with relatives, to go on a break in order to deal with stress and how to complete paperwork within their working hours. In addition, participant B89 described how they had adopted a strategy based on having observed how others had dealt with a similar situation.

“...one of the new nurses who started working on the wards... he just said to me, ‘I try and get all this done in the morning and then sit down before lunch and try and get most of my documentation done and then I’ve got the afternoon free to do other things that I need to do’. So I have tried to adopt that...” C155

Participants described how they had to learn to manage receiving critical feedback. Part of their learning was reflecting on why they were being criticised and managing their feelings when they received such feedback.

“...they [managers] would encourage you on one day and you would find them giving it out to you on the next, but this was part of... I think all of them were trying to get the best out of me... But I would get less sensitive and take it less personally as time goes on.” B104

Some learning by participants came as a result of having no prior experience or knowledge to draw on. This was particularly the case when some participants had incivility directed towards them for the first time or witnessed it between other staff. Similarly, it was new learning for a participant witnessing poor nursing practice.

“I think I maybe had a really lucky, all of my placements were positive. So this is the first time I’d ever come across that and that atmosphere, the staff seemed to hate each other.” D283

“I think it’s made me realise that as I build my confidence up and as I get more experienced in the job and in the profession, that you are going to see things like this... so I think now, in this new job, I feel more confident about going and saying, ‘no, I’m not happy about this.’” C133

Finally, closely linked to the participants’ strong commitment to learning and development was career planning, which was mentioned by almost three quarters of the participants. Participants were constructively thinking about the skills and knowledge they needed for their future nursing career and their advancement within the profession.

“I’m thinking of the future, I’m not thinking of staying in that same position for the rest of my life, no. It’s all about development as well. So I think for

me, where some people would say, 'no, no one has asked me.' You don't have to ask me, I'll be telling you I want to do this [course] after a certain time." B89

"I need to be on an acute medical ward, so that I can get into the areas that I want to go into." D283

5.4 Aspects of transition: personal barriers during transition

There were two sub-sub-themes identified: 'feeling a bit alone' and 'rollercoaster confidence'. They were interpreted as barriers because when participants felt alone and had episodes of poor professional self-confidence when trying to care for patients, they appeared to impede, as opposed to facilitate, the passage of transition.

5.4.1 Feeling a bit alone

It was clear from the commentary that some of the participants did not know if they were the only one that thought or experienced something. Participants thought that others must have coped better with stress than they had, but they did not know this to be a fact. An example of this was demonstrated by participant A23, who thought that they were the only nurse that cried at work. B56 had also thought this until they declared this to another nurse and discovered other nurses cry at work as well.

"I don't know if everyone has experienced something like that?" A15

"I don't see a nurse crying on the ward. Stress, it's just me." A23

"...you think it's just you. There is something wrong with you. You don't know enough and you're not communicating well with people and that's why all this is happening." D283

Some participants noted they had a fear of being on their own, though for a few it was clear it was a reality, rather than an anticipatory fear. The reasons given for this by participants were: their team barely interacted with them, they lacked active

support in that they had no mentor, there was no one they could open up to and no one asked them how they were getting on. Participant C138 made a link between having a mentor present while a nursing student and not having the presence of that relationship as a newly qualified nurse.

“I did feel very left out for a long time. That feeling that everyone is very pally...” B104

“I just felt like I wasn’t being, not supervised as such... sort of over-seen, just to make sure that I was okay... just feeling a bit alone to be honest.” C129

“...you’ve had three years of training and someone always being there and then once you’ve qualified, you feel like you’re on your own...” C138

A few participants considered whether their own character and behaviour were factors in feeling alone and perceiving that they lacked interaction with their team sometimes.

“I don’t know if I was being quiet as well and keeping away...” B104

“I think I tried to just put my head down and got on, I withdrew a little bit. Walk into the staff room for the handover and just try not to make eye contact, not that anybody would ever interact with me anyway.” D283

5.4.2 Rollercoaster confidence

The term ‘confidence’ was a repeated issue for many of the participants. Participants articulated their extreme up and down levels of confidence. This was dramatically illustrated by participant C138 who used phrases such as being “on a see-saw” and “on a rollercoaster” to describe their fluctuating confidence and general work experience.

“You feel like you’re on a rollercoaster. Some days you have good days and then you’re bad and then you just think, like emotionally it’s quite draining.” C138

The speed with which confidence can change was commented on by a few participants. Participants described their confidence as “*gradually knocked*” or “*gradually returning*” suggesting it was a slow and continual process in either direction.

“...it takes a while to get your confidence back, to believe in yourself.” D283

Participants identified a number of factors that led them to believe were the causes of their poor confidence. Being told “*you should know that*” and being criticised in front of others were factors external to the participant. A lack of ability, gaps in their knowledge and experience and comparing themselves to the perceived abilities of others were all factors that were related to the participants themselves.

“*I didn’t have enough confidence in my ability...*” B104

“*There’s like those sorts of gaps that can make you feel really, I don’t know, lose your confidence.*” A15

Improvements in confidence could also be categorised into factors that were internal and external to the participant. Internally, increased knowledge, skills and competence were all linked to confidence by participants, though no participant made a similar link with their increased experience gained over their first twelve months post-qualifying. Participants seemed to measure improvements in their confidence by their ability to be able to do something that they had previously been weak at.

“...they [even more newly qualified nurses than the participant] could ask me questions and I could say, ‘yeah I didn’t know that either, this is how you do that’, so it gave me a little bit more confidence.” D283

“*The more knowledge you get, the more confident you are. Before, I used to run away from the doctors. Now, it’s becoming easy to approach them.*” C129

Factors external to the participant that improved their confidence were being directly supervised, receiving praise and being set goals/targets that evidenced self-improvement.

“It did make me feel confident that he [manager] thought I had got what it takes.” A15

“...it gives you confidence to know that you’re on course... You know what’s expected of you, you’ve got something to aim for. When you don’t know what the goal is, you don’t know whether you’re falling short.” D283

5.5 Chapter summary

This chapter has provided the demographic descriptors for the sample at each of the four phases of the study and presented thematic aspects of the transition of the Phase 4 participants. At Phase 1, n= 288 nursing students were recruited at the point they qualified as a nurse. This constituted a 49% response rate. The participants at Phase 1 had an average age of thirty-two years and 40% had healthcare experience from employment prior to commencing their nurse education. At Phase 2, n= 107 of the original sample participated in data collection and at Phase 3, n= 86 participants completed the final quantitative phase of the study. At Phase 4, fourteen participants volunteered to take part in an individual interview. The Phase 4 participants were examined to determine if they were significantly different from all other participants at Phase 1 and Phase 3 with respect to each of the concepts under investigation in this study. The outcome was that they were not significantly different.

Phase 4 data analysis identified aspects of the transition participants had encountered over their first twelve months post-qualifying. Their personal transition showed how they felt that they needed ‘just passed’ plates on, that they affected the team they worked in, they compared themselves to other newly qualified nurses and felt judged by others, and that their transition lasted six to twelve months with a ‘turning point’ that precipitated feeling more comfortable and settled in their new status.

Participants showed personal qualities during their transition: high ideals applied to themselves and to others and a strong commitment to their own learning and development. Participants also had some personal barriers during their transition: feeling alone and isolated as well as highs and lows in their confidence. Overall,

these aspects of transition illustrated issues related to evolving professionalisation and socialisation on the path to adaptation to their new role and status.

This chapter has provided the broad background to who the sample was at each phase of the research and aspects of the transition they experienced over their first twelve months post-qualifying. In the next results chapter, the outcomes of the quantitative, qualitative and mixed (merged) analyses are presented related to stress and potentially stress-mediating factors.

Chapter 6 - Results: Stress and stress-mediating factors

6.0 Introduction

Chapter 5 presented sample descriptors for all four phases of the research and explored the transition experiences, personal qualities and barriers during transition of the Phase 4 participants. This chapter presents the results for stress, coping, social support, hardiness and resilience for all four phases. In each of these sections, the quantitative followed by qualitative then merged data analyses are presented.

6.1 Stress and the newly qualified nurse (quantitative)

The sources and frequency of stressors was determined from the Nursing Stress Scale (NSS). The scale consists of thirty-four items forming seven subscales. The NSS uses a Likert scale where '1= never', '2= occasionally', '3= frequently', and '4= very frequently'. An overall value for each subscale is calculated by summing each subscale's constituent questions and the total frequency of stressors is calculated by summing the scores for each of the subscales (Gray-Toft and Anderson, 1981). The distribution of the calculated values for the total frequency of stressors and the seven subscales was checked for each phase and found to be normally distributed. Consequently, parametric tests were utilised in the analyses.

Table 6.1 shows the mean (SD) results for the total frequency of stressors per phase. Taking into account that there were a different number of items in each of the seven subscales of the NSS, Figure 6.1 shows the mean score per subscale at each phase of the research. The results showed that 'workload' was the most frequently reported source of stress at each time point over the first twelve months post-qualifying. It also showed that all mean scores were less than three, which drawing from the Likert scale implies most stressors 'occasionally' occurred.

Table 6.1 Nursing Stress Scale mean scores at Phases 1-3

NSS subscales and total	Score range (Mean score)	Phase 1		Phase 2		Phase 3	
		Mean (SD)	n	Mean (SD)	n	Mean (SD)	n
NSS 1 Death and dying	7-28 (17.50)	15.00 (3.25)	259	13.31 (3.04)	88	14.32 (3.42)	77
NSS 2 Conflict with physicians	5-20 (12.50)	9.66 (2.50)	257	9.61 (2.41)	82	9.86 (2.23)	78
NSS 3 Inadequate preparation	3-12 (7.50)	6.37 (1.65)	270	5.88 (1.70)	89	6.20 (1.85)	79
NSS 4 Lack of support	3-12 (7.50)	5.55 (1.73)	273	5.82 (2.13)	89	5.65 (1.76)	80
NSS 5 Conflict with other nurses	5-20 (12.50)	9.51 (2.70)	269	9.91 (3.23)	88	9.62 (2.78)	79
NSS 6 Workload	6-24 (15.00)	14.72 (3.37)	260	14.58 (3.73)	88	16.18 (3.13)	78
NSS7 Uncertainty concerning treatment	5-20 (12.50)	10.19 (2.64)	260	10.20 (2.91)	86	9.82 (2.75)	79
NSS Total stress score	34-136 (85.00)	70.87 (12.83)	207	69.27 (14.38)	77	70.83 (13.40)	70

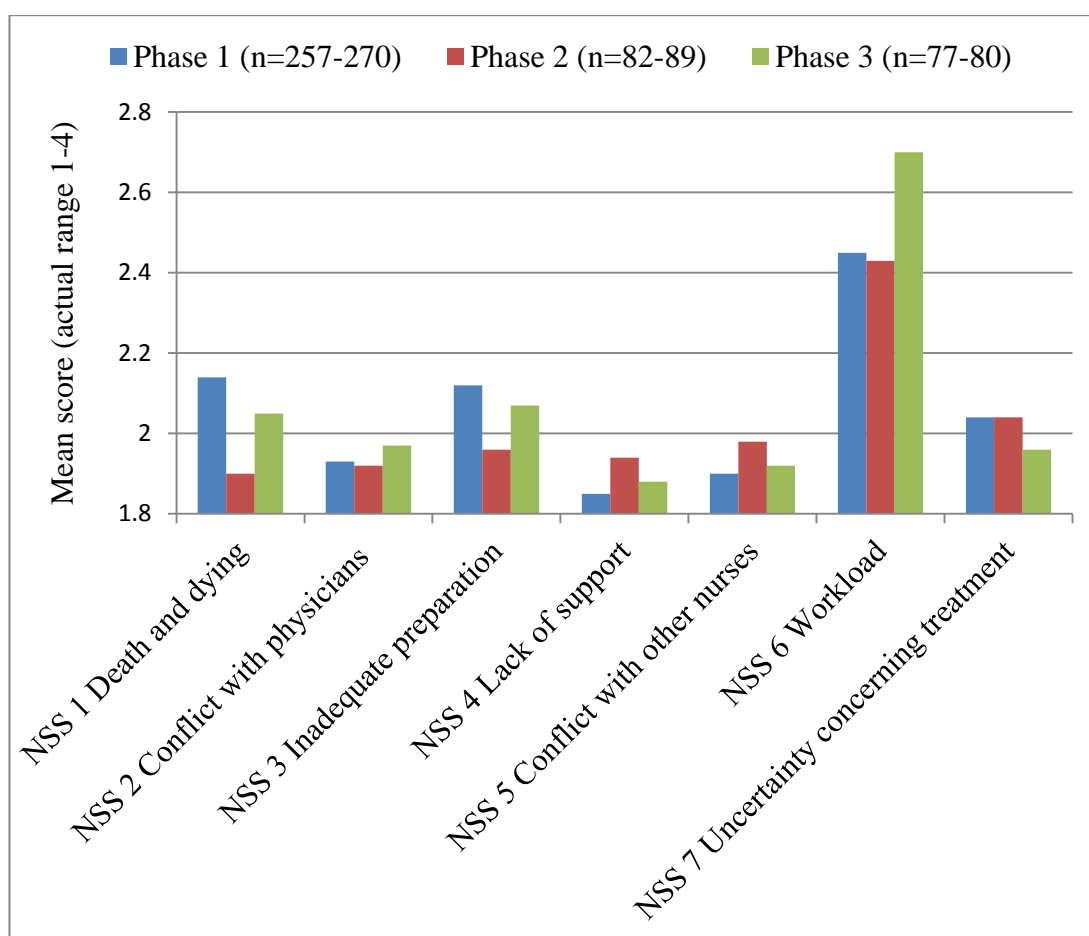
To further analyse the change that occurred in the sources and frequency of nursing stressors across the three phases a ‘one-way repeated measures ANOVA’ was used (Pallant, 2013). A ‘one way repeated measures ANOVA’ required data from participants that had completed all three phases of data collection and had no missing data in each subscale or any of the seven subscales for the total frequency of stressors (Son, Friedmann and Thomas, 2012).

The outcome was that only two variables significantly changed over twelve months. ‘Death and dying’ (NSS 1) significantly decreased between Phase 1 to Phase 2 [$F_{2, 50} = 9.66, p < 0.01$] and significantly increased between Phase 2 to Phase 3 [$F_{2, 50} = 9.66, p = 0.01$], though there was no significant difference between Phase 1 to Phase 3. ‘Workload’ (NSS 6) significantly increased between Phase 2 and Phase 3 [$F_{2, 50} = 5.54, p = 0.04$]. For all other variables, including the total frequency of

stressors, there was no significant difference between each time point over the first twelve months post-qualifying.

Non-responders at Phase 2 and/or Phase 3 and those with incomplete datasets were examined to determine if they were significantly different at Phase 1 from those that did participate throughout and have a full dataset. The outcome was that participants that were non-responders/incomplete datasets were only significantly different in relation to ‘conflict with physicians’ at Phase 2 [$t = -2.56$, $df = 255$, $p = 0.01$, 95% CI (-1.78, -0.23)] as they reported less frequently occurring stress from this source. In all other regards, the participants that had the required data to be included in the ‘one way repeated measures ANOVA’ were not significantly different to all the other participants at Phase 1.

Figure 6.1 Nursing Stress Scale subscale mean scores per item at Phases 1-3



The relationship between the frequency of stressors and the age of the participants, the nursing qualification they obtained and the relevance of healthcare experience prior to commencing their nurse education were all statistically analysed. At Phase 1, there was a significant negative correlation ($p < 0.01$) between the total frequency of stressors and age for $n = 193$ participants where complete data were available for both variables. The 'Pearson product-moment correlation coefficient' was $r = -0.23$. This suggested that the older the participant, the lower the total frequency of stressors. However, the strength of the relationship was weak as the effect size was small (Cohen, 1988). At Phase 2 and Phase 3, there was no significant correlation between age and the total frequency of stressors. Furthermore, the total frequency of stressors for Phase 2 and Phase 3 non-responders was analysed using Phase 1 data and there were no significant differences found between them at baseline and the rest of the Phase 1 participants.

To examine the specific sources of stress at Phase 1 associated with age, further correlations were undertaken. The outcome was that 'death and dying', 'conflict with physicians', 'inadequate preparation' and 'uncertainty concerning treatment' were sources of stress that each significantly ($p < 0.01$) diminished with increased age.

An 'independent samples t-test' was used to determine if there was a significant difference between the participants that qualified with a Diploma and participants that qualified with a BSc in terms of the total frequency of their stressors. At Phase 1, the mean (SD) score for the total frequency of stressors was 68.54 (12.73) for participants who qualified with a Diploma ($n = 99$) and 73.02 (12.60) for participants who qualified with a BSc ($n = 108$), where complete data were available for both variables. The difference between the two groups was significant with participants entering nursing with a BSc qualification experiencing a greater total frequency of stressors [$t = -2.55$, $df = 205$, $p = 0.01$, 95%CI (-7.96, -1.01)]. There were no significant differences between the groups at Phase 2 or Phase 3.

To examine what might be the sources of stress that participants who qualified with a BSc were encountering at Phase 1, further 'independent samples t-tests' were undertaken. The outcome was that participants who qualified with a BSc reported

significantly greater stress from ‘death and dying’ ($p= 0.01$), ‘conflict with physicians’ ($p= 0.03$), ‘inadequate preparation’ ($p= 0.01$) and ‘uncertainty concerning treatment’ ($p< 0.01$) compared to those that qualified with a Diploma.

An ‘independent samples t-test’ was used to determine if there was a significant difference between participants who had healthcare experience from employment prior to commencing their nurse education and participants who did not have experience, in terms of their total frequency of stressors. At Phase 1, $n= 88$ participants indicated that they had this type of previous experience, while $n= 116$ indicated that they did not. Where complete data were available, participants who had previous healthcare experience reported significantly less frequently occurring stressors [$t= 2.80$, $df= 202$, $p< 0.01$, 95%CI (1.48, 8.54)]. Those that had previous experience had a mean (SD) of 68.10 (12.44), whereas those without experience had a mean (SD) of 73.11 (12.84). At Phase 2, the difference between the two groups was not significant. However, at Phase 3, there was a significant difference between the two groups again [$t= 2.19$, $df= 66$, $p= 0.03$, 95%CI (0.31, 13.26)]. Those that had previous experience had a mean (SD) of 67.34 (12.06), whereas those without experience had a mean (SD) of 74.28 (13.51), though the sample size for participants with prior experience was small at $n= 29$.

To examine what might be the sources of stress at Phase 1, further ‘independent samples t-tests’ were undertaken. The results showed that ‘conflict with physicians’, ‘lack of support’, ‘conflict with other nurses’ and ‘uncertainty concerning treatment’ were all significant sources of reported stress for participants without previous healthcare experience (Table 6.2).

As there was also a significant difference at Phase 3 for the total frequency of stressors, the sources of stress were analysed. The results showed that ‘conflict with physicians’ [$t= 2.07$, $df= 74$, $p= 0.04$, 95%CI (0.49, 0.04)] was a significant source of reported stress for participants without previous healthcare experience, as it had been at Phase 1. All other sources of stress identified at Phase 1 were not evident, but instead ‘workload’ [$t= 2.89$, $df= 74$, $p< 0.01$, 95%CI (0.63, 3.04)] was identified as a new source of stress.

Table 6.2 Comparison between participants with and without healthcare experience from employment prior to commencing their nurse education and Nursing Stress Scale subscales at Phase 1

NSS subscales	With prior experience Mean (SD)	n	Without prior experience Mean (SD)	n	Independent samples t-test p value
NSS 1 Death and dying	14.73 (3.28)	102	15.24 (3.26)	152	p> 0.05
NSS 2 Conflict with physicians	9.16 (2.35)	103	10.03 (2.56)	150	p= 0.01
NSS 3 Inadequate preparation	6.14 (1.72)	102	6.52 (1.60)	161	p> 0.05
NSS 4 Lack of support	5.25 (1.52)	106	5.72 (1.85)	162	p= 0.03
NSS 5 Conflict with other nurses	9.13 (2.84)	104	9.80 (2.63)	157	p= 0.05
NSS 6 Workload	14.40 (3.66)	101	14.92 (3.17)	155	p> 0.05
NSS 7 Uncertainty concerning treatment	9.70 (2.49)	103	10.54 (2.69)	150	p= 0.01

6.2 Stressors and stress experiences (qualitative)

At Phase 4, participants were asked in an interview to discuss what they felt caused them stress at work. In analysing the data it was important to identify only factors that the participants cited as a stressor. A circumstance may be interpreted as stressful by one person but not by another. Therefore, within the analysis it was paramount not to surmise that a stressor existed where the participant had not identified it as such. Two sub-themes of stressors were identified: ‘factors related to the person’ and ‘factors related to the job’ (see Appendix 16). The stressors that pertained to the participants as an individual were: ‘feeling terrified and criticised’, ‘knowledge deficits’ and ‘high standards and hard adjustments’. The stressors that related to their job, job location and the organisation in which they worked were: ‘incivility: it’s not the job, it’s the people you work with’, ‘work/workload’ and ‘you are an employee: they can do what they want’.

6.2.1 Factors related to the person

6.2.1.1 Feeling terrified and criticised

Participants provided an insight into their feelings and fears that they associated with being a newly qualified nurse. Participants felt the weight of increased responsibility, particularly when they first transitioned from being a nursing student to being a practicing qualified nurse. There was a sense that now they were qualified responsibility “*rests on your shoulders*”, though participant B56 was clear that they were not prepared to do something if they felt incapable or unsure. Only participant D283 indicated that they had felt responsible as a nursing student, so they did not feel any greater burden now they were working as a qualified nurse.

“When you first start obviously you are terrified because you are suddenly feeling responsible for everybody, you know, all your patients. Just the overall feeling of the weight of responsibility; that stresses me.” A15

“I think jumping from student to Staff Nurse, one day you’re a student and the next time you go in anywhere... you’re a Staff Nurse and that responsibility is on you, and it all changes and that’s very stressful.” C133

Participants expressed a range of feelings all of which could be categorised as being related to working in the absence of suitable support within the job location.

Participants used phrases such as being “*chucked in*”, “*thrown in*” and “*dumped into the deep end*” to illustrate how they felt. Likewise, participants implied how, because they were qualified, there was an expectation from others they could just get on with the role without further assistance.

“You were literally, well there you go and get on with it. No preceptorship, no nothing. I mean, we were just dumped into the deep end.” A24

Participant A23 was particularly affected by relatives. They found it stressful not knowing what they were permitted to tell a relative and what could only be told to them by a doctor. This participant had been the subject of a complaint by a relative and even though there had been no case to answer, it had left the participant with an anticipatory fear of relatives.

“I still think about it [complaint by a relative]. I think that doesn’t help with me, with being able to talk to relatives, because I am scared of something like that happening again.” A23

Participants articulated a range of fears that were more anticipatory than stemming from something they had actually endured. Participants had a fear of making an error and thus harming a patient.

“...that’s more important to me now than a PIN number or having to go to court, it’s that thought that I don’t want to hurt anyone.” D283

A few participants illustrated how the stressor remained with them as they would reflect on their actions after their shift had ended. Probably associated with this, participants held a fear of litigation, the NMC and of losing their NMC registration.

“Documentation, always worrying that you haven’t written enough and then something is going to happen and you are going to be taken to court or something. I experienced her [another newly qualified nurse on the ward] first complaint from a patient and that was very, that was very stressful.” A15

Of all the roles of a qualified nurse, only the administration of medication was associated with adverse feelings and fear for participants. Participant C129 described how they felt like they had to “beg” other nurses to administer their intravenous medications and that the time that lapsed between requesting help and actual administration directly affected patient care, which in itself caused stress for participants. However, at the same time participants had an associated fear of giving medication because of its potential to harm a patient if given in error. There were therefore stressors associated with not being able to and being able to give intravenous medication.

“The IVs is the big deal at the beginning. It is the most, the headache one.” C129

“You feel terrified. I mean you are checking before giving medicine. I’m checking all the serial numbers. I’m checking the obs chart. I’m asking the

patient... before I'm giving anything. I'm thinking, 'God, what if something happens?'" A15

Another aspect to the issue of medication was the speed with which participants were able to complete their non-intravenous medication round. Participants felt conflicted between administering medication according to the safe standards they had been taught as a nursing student and working at a speed that seemed agreeable to their team. Participants described how they had endured criticism from their manager, nurses and even HCAs when their speed of delivery was regarded as too slow.

"For example, leaving medicine pots on the table, so that you can get the round done quicker. I'm slow because I don't, I still give the medicine. But the pressure, 'you're too slow, you're too slow'. But I'm thinking, 'I'm slow because I'm doing it right!' But the pressure to conform, yeah, it's there." D283

"It takes so long just doing my eight patients and then some of the HCAs have the idea that you are wasting time. You're not taking your time. You can't do it any quicker." A15

Only one participant felt positively about the fear associated with administering medication. They regarded it as a safeguard against developing unsafe practice. This participant, like the other participants that worked in the community, did not mention stressors related to the speed of medication delivery. This is presumably because they are predominantly lone workers, who do not undertake medication rounds.

"Even now sometimes I'll be going home and think, 'God, did I give the right dose?' I know that I have because I know that I always check, but there's still, but I think if you don't feel a little bit like that still, then I think that's when you've just got into a habit and a routine, and that's unsafe." B98

Participants articulated that they had a fear of being asked a question and not knowing the answer. When they were a nursing student there was a legitimate reason to access support in order to answer questions, but as a qualified nurse they felt that there was an assumption that the answer should be immediately known.

This assumption partly originated from within the participant and partly it hailed from the participant's perception of the view held by the person asking the question. Some participants developed strategies to manage not knowing an answer such as B89, who learnt they could say, "*I don't know*".

"...when you're a student, you're with a mentor... and there is always someone to go and ask. Whereas if you've got your blue on, your uniform, everyone comes to ask you and you don't always know the answers. It's quite hard to say to some people, 'sorry, I'm newly qualified' because they just want answers then and there, so that's added stress as well for me." C138

"I was having palpitations every time I go into theatre, 'oh my God, I can't remember, I don't know.' I was actually afraid of being asked a question that I didn't know the answer to it, but then I will say, 'I don't know.' 'That would be...' 'I don't know.' So I think slowly, but surely, I calmed down a bit and I'm able to go on." B89

6.2.1.2 Knowledge deficits

Participants had a perception that they lacked knowledge. They had a self-imposed need to learn quickly, but this could feel over-whelming as there was so much to learn, particularly when coupled with managing other requirements of the role of a nurse. Participant B89 provided an explanation for why there was a need to learn linking knowledge to their perception of what constituted a "*professional person*".

"...all this new stuff, all these new procedures and things. God, it's a lot to have to suddenly learn, you know, quickly, quickly learn it. No time to learn it, you are doing it all straightaway." A15

"I feel like I should know. I know it is only a year and there is so much to learn..." D266

The reasons for the lack of knowledge stemmed from being in a situation where the participants could not draw on prior learning and/or experience. Some participants simply linked this to not having learnt or experienced something while they were a nursing student or they had not undertaken a placement in their job location.

However, for other participants the reason was related to managing outlying patients that were routinely placed on their ward and being floated off their ward for a shift to cover a new job location.

“...we have a lot of outliers from medical or orthopaedic... And you think, ‘oh my goodness, what is this?’ Obviously, you’re never going to know everything. You’re always going to be learning something...” C138

“...until you go down there and keep doing it. You go down there and all the A&E nurses think you are an idiot because you don’t know what you are doing... Stand there going, ‘I don’t know what to do’”. A23

Another issue associated with knowledge for participants was that they felt there was an expectation and an assumption by others that now they were qualified, they should know something.

“There is a presumption from your Sister of your side... ‘don’t you know?’ ...but really it should be obvious because if you’ve not come across it and nobody’s shown you it. How are you supposed to have known? You can read about it, but you won’t know, experienced it.” A15

6.2.1.3 High standards and hard adjustments

Participants had a strong desire to uphold their own standard of professionalism and care, resonating with the ‘high ideals for self and others’ as one of the ‘personal qualities impacting on transition’ discussed in Section 5.3.1. Participants in part linked this to what they had learnt during their nurse education and as participant A24 stated, partly because on qualifying “*you go in thinking you can change the world*”. However, there was evidence that for some this desire became a pressure to do everything perfectly.

“When you do become a nurse you are of course trying to do everything perfect, but some things obviously it doesn’t work out like that.” A15

A few participants noted how they had received criticism for trying to maintain their standards of care delivery or that their high standards were not appreciated by other members of their team.

[Manager talking to the participant about a complaint from a Band 6 nurse]
“‘The thing is I think she feels threatened because you have got very high standards.’ I went, ‘yeah and I’ll tell you one thing, I ain’t going to be dropping them anytime soon.’” A24

Participants highlighted the stress they felt to conform to the expectations of others and the practices and norms of the team. Participant B98 noted the existence of this pressure suggesting younger nurses were more vulnerable to acquiesce.

“...writing down an assessment, we’d been taught meticulously... There it was like, ‘oh God, look at that’ because they couldn’t be bothered to do that. So it was how much do I compromise here, so you do try to fit in a little bit.” D283

“To endure and to learn and to ensure that, you know, these things, I don’t go down the same road as my colleagues...” C185

Participants had an associated fear of the immediate consequences of following poor standards of practice and of their own future professional integrity.

“I thought if something happened and those drugs weren’t taken, it’s me, I’m going to get this in the ear. I watched everyone, like the ward manager. They just leave the pot on the table and off they’d go and I thought, ‘what do I do?’” A24

“And pressure of workload. You have to move fast, so you cut corners, yeah. It is hard. It’s a hard adjustment to make when you’ve been taught the ideal.” D283

6.2.2 Factors related to the job

6.2.2.1 Incivility: it’s not the job, it’s the people you work with

Incivility incorporated any behaviour and/or attitude that the participant felt had been unacceptable since they qualified. Predominantly, participants described incivility that they had actually received. It frequently involved unacceptable verbal communication, which had been directed towards them. Sometimes participants

spoke in more general terms about acts of incivility and did not explicitly specify individual staff groups. However, for the most part, participants identified individual staff groups: the ward/team manager, nurses including long-serving nurses, HCAs and Matron.

In general terms, participants were clear that their work-related stressors were caused by the people they worked with, not their roles as a nurse.

“Other staff! None of the expected things that we were warned about: the extra responsibility, the accountability, organising your time. We were prepared for all that, but I think other staff.” D283

“I knew from day one, literally of starting out on the studying route and then going on, it was never going to be the patients that would cause me stress, it was always going to be staff. And that’s pretty much what it was when I started last year.” A24

Participants described how they felt left out or excluded from the team or that their team where difficult to work with.

“...she [another newly qualified nurse] was with that lot and I was on my own.” C133

“Just being quite hostile, no one would talk to you, no one would help you.” D283

In terms of communication from the team, participants had received criticism for taking longer than expected to carry out a task, most notably administering medication. Participant C138 felt that staff stuck with their own tasks and would not offer them help or advice. The outcome of this kind of sustained team behaviour for some participants was they withdraw from trying to be part of the team.

“I looked at the patients and thought, ‘no, I need to be here because you’re the reason I’m here.’ I don’t give a sod about the staff now really. I work with them, I’ll be polite, but I won’t, you’re not my priority, staff. You don’t want to be team-workers, that’s fine!” A24

Unacceptable verbal communication was evident in many of the stressors caused by the ward/team manager. Participants described how they felt the manager never praised them if they had performed well. They only received criticism for their work. Some had never received feedback of any kind. A few participants stated how their manager would criticise the whole team including them, rather than targeting the actual culprits of their complaint. Participants also gave examples of how their manager had belittled them in front of others. Participant C133 described how their manager had not listened to both sides of an issue, essentially ignoring or giving less weight to the participant's version of events.

"My manager heard about the situation, but I didn't even get a, 'well done, that was good.'" C133

"I went to take blood from a patient, just newly got the skill and he [manager] sent me over to the bed... and then he shouted out after me, 'don't muck it up'. I said [to the patient], 'it's fine I can do it', but then of course I was extra nervous. If I don't get it, it really looks like I'm a bit rubbish..." A15

"To be honest, I was hauled into the office once a week and this, this, this and this, and because I didn't have evidence to prove my innocence, it was a case of well, go on, throw what you're going to throw at me and I'll just walk away afterwards, because whatever I tell you, you don't believe me. You believe everyone else, so there's no point in me even giving my side of the story." C133

Participant A23 described how they had wanted to talk to their manager about their concerns, but the manager would always be busy and not make time for the participant. Several participants highlighted how they had asked their manager for access to training and courses. For some participants their personal development requests were ignored, blocked or cancelled by their manager.

"The only time they [manager] have time for us is when we say, 'I really need to speak to you now'". I don't think they have been very good at identifying when we have been really stressed. It is always, we have to go to them..." A23

“...you [manager] want me to learn this, but how can I learn it if you won’t let me go...” C138

Unacceptable verbal communication was also evident in many of the stressors caused by nurses. Participants said how nurses either did not talk to the participant or only intermittently spoke to them. They provided examples of where they had been unacceptably spoken to in the presence of others.

“...some of them [nurses], I don’t even think they can communicate. One minute they say hello to you, then the next minute, you don’t know what you’ve done to them, they’re not talking to you.” C129

“...how she [nurse] spoke [to participant] and it was right in front of the doctors, other patients and patients’ relatives as well, so that really, really got me down...” B56

Participants described how nurses would use phrases such as “*don’t you know*” or “*you should know*”. This was often as a result of the participant having asked a question or seeking help.

“You ask them something, they forget that you’re just newly qualified. There’s a lot of instances of, ‘oh, you’re qualified staff now.’” C129

“... ‘you should know’, and you just think, ‘perhaps I should know, but I don’t know, that’s why I’m asking.’” C138

The most noted issue participants needed to ask nurses for was for them to administer intravenous medication to their patients because they had not yet completed their administration of medication certificate. Participants illustrated the range of responses they would receive. Some responses were verbal in that nurses would say they were too busy to help, or questioned why they had not completed their certificate. Other responses were a lack of action, which caused participants’ stress because they could appreciate the impact it would have on their patient.

“...it’s stressful when your patient is in pain and just to give Paracetamol, you can’t give it. You need someone to go and do it for you when you’ve

asked and basically, 'I'm busy, I'm busy'. 'My patient is in pain', 'I'm busy.'" B56

Related to a lack of action, Participant A24 felt that some nurses were “lazy” and thus created work for others. Some nurses would deliberately not help participants.

“Giving you extra work and then sitting down and doing nothing and watching you struggle. If you ask basic questions they sort of say, 'you should know that, you're qualified now' and just wouldn't help you at all.” D283

Participants described how they felt some nurses demonstrated a lack of commitment to helping them complete their preceptorship assessments and documentation.

“...some of the nurses when you're showing them, 'oh my book, can we work together so I get this signed off and show you what I can do?' They'll do it and they don't sign it off or some of them are like, 'we'll do it later, we'll do it later' and it just gets brushed aside, so unless you find that one person that doesn't actually mind, it's really hard.” B56

The handing over of nursing tasks to the next shift seemed a particular stressor for participants. Several participants felt nurses could be uncivil when time constraints meant they had to hand over nursing tasks to the next shift. Participants felt under pressure not to leave tasks as a result.

“... feeling guilty because if I wasn't able to do something, I've had to pass it on... a lot of them say, 'look, nursing is twenty-four/seven, we share everything', but then some of them you get the, 'okay, that's fine, I'll just have to find time to do that on top of everything else'. Yeah, thanks, make me feel even worse!” C155

Long-serving nurses were specifically identified by some participants. These were nurses that had been qualified for many years and sometimes, but not always, had also been in the same job location for many years. Participants described how these nurses had not been welcoming and did not talk to them. They would do things together and not mix with the rest of the team. Participant C129 described how they would keep quiet around the long-serving nurses because “they just snap”.

Participant D283 speculated that the incivility they had seen in long-serving nurses was because they had been in the job location too long, had lost enthusiasm and “*couldn't be bothered anymore*”.

“I think it was sometimes feeling excluded sometimes as well, you know. They seem to be long established on the ward, lots of the staff and would always be doing things together.” B104

“No, they [long-serving nurses] just went, ‘well you’re qualified, you should know everything, why are you asking us, why are you asking us for help and why are you trying to ask me to do something when I’ve been here twenty years and you’ve been qualified for two months.’” D283

It is impossible to know whether HCAs targeted the participants because they were newly qualified or their incivility was experienced by other staff groups as well, but participants described a range of uncivil behaviour directed towards them.

Participant A24 spoke of how some HCAs try to “*wind you up*”. Other participants described being belittled by HCAs in front of others and having their requests for help ignored.

“...I found some of the care assistants difficult in my ward... I thought they were harder to deal with than the staff or, you know, the nurses... I don’t know if it was power struggles, but my boss would say delegate some jobs... I think it’s not worth it if I am going to get the door slammed in my face or I am not spoken to for a few days.” B104

“If they [HCAs] like you, they like you. If they don’t like you, they can make your life hell. They’re really quite powerful. In some wards they actually control it. So, if they like you they’re fine, they help you, they do things and sometimes they’ve got better knowledge than you. They really support you.” C129

“I was in a side-room with a patient and this particular HCA, who was causing trouble with me, she said [to the patient], ‘it’s okay dear, she’s a nurse, but not a nurse’. She said to another patient with me, ‘you’ve got two

nurses with you'. I wanted to say, 'you're not a nurse, but when you show me your PIN number, you can call yourself a nurse'." C133

A few participants detailed incidences of incivility from their Matron. Unacceptable verbal communication by their Matron was evident in their descriptions. Participant C155 described an incident where the Matron criticised them in front of other nurse colleagues. This was 'out of the blue', public criticism without any opportunity for discussion or dialogue.

"...she's [Matron's] one of these people that's very, she's very blunt and to the point... she's someone that you have to tread eggshells around. So it's kind of like, if she's in a bad mood, stay away..." C155

"...she [Matron] was awful. I said, 'I can't leave my ward short.' She was like, 'well that's your problem.' I felt awful because I should be doing exactly what the Matron is telling me, but deep down I was thinking, 'what if something happened on my ward?'" A23

A few participants held a fear of receiving incivility because they had previously had what they regarded as unacceptable behaviour/attitude directed towards them. These participants identified their ward/team manager, HCAs and relatives in relation to this. For other participants the fear came from having witnessed incivility directed towards others or they had been told the experience of another newly qualified nurse.

"I heard this from other members of staff. He's [manager] softer on you at the beginning, but then later on he starts to want more from you, so that's caused me stress... I'd seen him be sort of tough with other members of staff and I'd thought, 'wow, that's a bit...' but when it happened to me I thought, 'wow, this is what they have been saying.'" A15

6.2.2.2 Work/workload

Participants experienced a range of stressors that related to working on a ward or in the community and being a part of a team. Thematic analysis determined that work/workload consisted of: 'always short staffed and taking charge of the shift', 'trying to balance everything' and 'shift work: obsessed about the rota'.

6.2.2.2.1 Always short staffed and taking charge of the shift

Inadequate numbers of nurses per shift was a stressor cited by many participants. Participants illustrated the direct impact this had on them being on a shift with an inadequate number of staff or a poor skill mix.

“I’d say the main cause of stress is probably shortness of staff.” B98

“Staffing, staffing, staffing. We’re always short staffed. We had one shift where we were three nurses down and two HCA’s down, so it meant that the Nurse in Charge had to take patients as well... I think that’s the biggest stress for me.” B56

“On most days, I’d say that probably fifty per cent of the time, we were so short staffed that I’d have fifteen patients per shift, as a newly qualified, fifteen, all with varying degrees of illness.” A24

Inadequate numbers of nurses per shift particularly impacted on participants if it resulted in them having to take charge of the shift generating feelings of being ill-prepared and fearing the consequences of making an error, especially when it had occurred within a few weeks or months of having qualified. The underlying reason for this situation causing such concern was provided by participant D283, who said that the newly qualified nurse is “*still not fully developed*” at least to a level where they could safely take charge of a shift.

“I walked in to find that people had gone sick and it was me, three weeks in on the job, newly qualified and two agency nurses and they expected me to take charge of the shift. I thought, ‘no, I’m just not prepared to take this responsibility. I’m not qualified enough to take that on.’ ...I thought, ‘if something happens this is all down to me’, you know, and I thought, ‘no, it’s too soon.’” A24

“I found that really stressful. Managing a ward is just completely, what I didn’t expect. Like the first few months from me qualifying.” A23

There were also direct consequences for participants wanting to be released to attend to their learning and development needs. Inadequate numbers of nurses per shift

could result in the cancellation of a scheduled training event because they had to cover a shift.

“With the computer work as well, when we first join, it’s, ‘oh, book yourself on to this, this and this’... but because I was there and they were short... I couldn’t go to all of the training because they said, ‘no, you can’t go’...” C138

Participant A15 felt that their excessive workload was unavoidable and that their manager knew the workload was too much, too soon, but could do little about it as a direct consequence of inadequate staffing levels.

“May be it is because they haven’t got enough staff so they are putting the pressure on the newly qualified nurse, because they haven’t got a choice, because she [manager] is one of the five that morning, so she had got to...” A15

6.2.2.2.2 Trying to balance everything

A difficulty for participants associated with carrying out their nursing work was when their self-developed strategy for managing their workload and planning their care of patients was interrupted, disrupted or could not be deployed at all. For hospital-based participants, it was problematic when they were unable to attend the doctor’s ward round because it affected their ability to plan their patient’s care. Relatives were also a difficulty because participants felt bombarded by questions that meant they were delayed or interrupted in carrying out their work.

“...never got a chance to go on a ward round with a doctor ever because you are too busy. Whereas really, it’s your bay you need to know what’s going on...” A24

“...you just think, ‘oh my goodness, how do I get everything else done?’ [because of relatives] ...it’s just a battle sometimes... you’re trying to balance everything.” C138

Paperwork was regarded by a few participants as a problem. Large amounts of paperwork coupled with workloads gave little free time to complete it. Some of the

paperwork requirements were viewed as needless and not individualised to the patient, yet there was a fear of the repercussions of not completing it fully and to a suitable standard. With the proliferation of documentation moving to computer-based systems, participants cited this as a stressor because they had not had any or sufficient training on how to use the systems to input mandatory data.

“...it actually got to a point where it was getting so stressful on the ward... my paperwork for example, it wouldn’t get done until the end of the shift and sometimes I would be there until 9.30pm, 9.45pm and I was meant to finish at 8.00pm, trying to finish my paperwork”. C155

“Oh and the paperwork, I never ever got away on time, ever. You daren’t sit at the nurses’ station to try and do your paperwork because the phone never stopped. And you think, ‘when am I supposed to get this done?’” A24

As the dialogue above also illustrates, some participants commented on how they regularly worked late, beyond when their shift should have ended. This was frequently due to not having completed their paperwork during their shift and having too many nursing tasks to do throughout the shift.

“...I think like, with me, I’m not leaving on time either, because I think, because of everything taking the time with patients, the relatives, doing X, Y and Z and obviously writing your notes and everything being documented, I’m leaving about 8.30pm, 9.00pm when I should have been going at 8.00pm...” C138

“I had about eight IV antibiotics to do and I was thinking, ‘how am I going to get all this done?’ The night staff are coming and I have all my paperwork to do. I’ve got to the point where I have cried before, because I have just, under the pressure...” A23

The ramification of workload for some participants was that they did not take adequate breaks during their shift. A few were able to identify in themselves the physical toll this was taking.

“I was on the Red Bull™ every morning. We weren’t getting breaks. I just literally was on Red Bull™ every time just to keep going and keep alert and

going and going and going. That's how I felt in the head, that I've got to keep going." A24

"...there's times when you start the list, your case might finish eleven o'clock and you've had no drink and it does happen... There's times I was having lunch, four o'clock in the afternoon, because I'd had to work through lunch because I was stuck in theatres for a long period of time. So eating habits-wise, it was terrible..." B89

A further ramification for a few participants was they felt they could not attend to their learning and development because they only had time to focus on their immediate workload.

"...the way I was feeling, like I had had enough information up to the top and I probably couldn't have fitted that [new learning] in at that moment because I had a hundred and one things going on in my mind." A15

"...I was so involved with the ward, I was just sort of trying to get through every day and I didn't even think [about preceptorship]." C155

Only participant B104 specifically stated that they felt their workload had been manageable. This was because they felt they had been "*well cushioned*" and not given more than they could cope with. However, for other participants they were either not being observed working beyond the end of their shift and/or working through their breaks, or where being observed, but not given advice on how to manage their workload better.

"...all the senior staff are going, 'come on, go home', but I'm not always ready to go home because I've been obviously helping and assisting the patients and I haven't had a chance to do my documentation... and you just think, 'God, there's not enough hours in the day.'" C138

"...a lot of the time people were saying to me, 'you just need to prioritise your workload' and it's like, it's impossible! No, no-one's really given me any pointers to say like how to do it..." C155

6.2.2.2.3 Shift work: obsessed about the rota

Shift work and putting in requests for certain days off was an issue for some participants, despite having experienced it while being a nursing student. Doing a variety of shifts led to a lack of routine and work/life balance, as well as being regarded as “*hard on the body*” and causing sleep pattern problems.

“You do these shifts when you are a student, but you do a small amount, don’t you. You are not doing them every day. The rota can be quite stressful because, ‘oh I didn’t get that day off’ and you wanted that day... I try not to obsess so much about the rotas, but I used to a lot.” A15

“I work shifts, three different shifts. It is of course, you know, three 4.00pm to 9.00pm and at night it’s 9.00pm until 7.00am and sometimes they can run all three on one week, back to back, and that can be a bit stressful sometimes and sometimes it’s good.” B104

Shifts were also a concern for a completely different reason. Participants would look to see who they were going to be on duty with and have negative anticipatory feelings about the shift if they were rostered with certain staff. Participant C155 explained why they felt like this; it was because they knew the colleagues who were “*not going to help me*”.

“It’s like you look at your rota and say, ‘oh my God, I’m going to be working with them today.’ C129

“...looking at the off-duty to see who will be on with that shift and then obviously thinking, ‘oh goodness, it’s going to be a bad shift’, but as I say, it shouldn’t be like that at all really...” C138

6.2.2.3 You are an employee: they can do what they want

Participants experienced decisions and politics within their organisation that were external to them, yet impacted upon them. There were issues in their job location, namely within their ward, their ward team or community team. There were also issues within their Trust, hospital or at a senior management level, a common feature of which was the destabilising effect they had on participants.

Within their job location, participants highlighted the rigidity of ward routines and a lack of equipment. Both of these factors caused stress to the participants because it compromised the quality and individuality of the care they wanted to provide for their patients.

“I think it is a bit rigid with the times as well, like with handover between 7.30am and 8.00am. If you’ve been waylaid or anything, you can’t always update it on the computer... I would rather leave that box unticked and make sure the patient’s like comfortable, safe and free from harm...” C138

“...they haven’t got the equipment. I can remember walking round the hospital for an hour looking for a bandage and only one ward had four bandages and could let me have one. We had no stock.” A24

Participants described the impact on them as a result of senior management decisions within their organisation. The most frequently cited example of this was the effect all-day visiting hours had on their ability to carry out their nursing tasks.

“The stress could be reduced by cutting the visiting times, it’s just too much... the patients need a bit of rest and they’ve got these people there hours on end and the nurses can’t get their jobs done...” A24

Participant A23 discussed at length the impact internal rotation within their speciality had on them. They had originally been placed on an acute ward looking after four patients and had been rotated to a long-term ward looking after ten patients. The participant said how they *“hate being moved wards”*. They had established a *“sort of a set routine”* that could not be re-applied to their new location because the nursing care requirements of the patients were different. The participant felt that too many nurses had been rotated at once and this left some nurses feeling like they did not know what they were doing. In addition, they felt that it had affected their learning and development and that it had been like starting a new job. The participant could only speculate about the reason for the rotation as it had not been explained to them and had no idea when they might be returning to their original job location.

“I found that very, very difficult and we are not being told we are going back down there either. I still find it stressful even now... I loved Ward A. ...I

want to get our team back. We had a really lovely team and we had such a lovely Unit down there.” A23

Other stressors identified centred on actual or rumoured wards merging, wards closing or the hospital closing. Participants illustrated the negative effect it had on them and the challenges nursing teams faced as they were formed and broken up.

“Yeah, it’s had quite an effect on me. I am angry really because it wasn’t the ward that I wanted to join. Now it’s changed and I don’t have any choice in it. We are going to be merging with the other ward and we are going to be moved down the other end. And then, apparently, we are all going to be mixed up and rotated and everything. You are an employee of the Trust, you are told, and they can put you wherever they want.” A15

“I think they [nurses] were all coming from different places, so that was hard because they were all trying to settle in and get on with each other and different working practices and what not.” A24

6.3 Merged analysis of stress-related results

The results showed that participants experienced a broad range of occasionally occurring stressors with the total frequency of stressors not significantly changing between each time point. ‘Workload’ was the most frequently occurring source of stress reported at each time point over the first twelve months post-qualifying, with it significantly rising between six months and twelve months post-qualifying. Analysis of the Phase 4 qualitative data complimented this result and identified reasons for why workload was a source of stress for participants. Participants worked in locations where there was an inadequate number of staff on shift, which could result in them having to take charge of the shift, often when they had been qualified a very short length of time. They were balancing multiple role requirements, often encountering disruptive interruptions and they struggled to complete tasks and roles during their shift, regularly having to stay beyond the end of their shift to finish paperwork that was neglected in preference to direct patient care during the shift. They also encountered stressors associated with shift work: trying to develop a

routine and work/life balance. However, their shifts were also a source of stress because of a lack of support and incivility, either perceived or feared, from the team around them.

Also related to the work of the participants, and a more divergent result, was ‘death and dying’ became a significantly less frequently occurring source of stress reported during their first six months post-qualifying, but significantly rose again between six months and twelve months post-qualifying. However, no participant mentioned ‘death and dying’ as a stressor at Phase 4. The additional workplace stressors that were thematically identified from Phase 4 data were factors that related directly to the participant. Participants felt the sudden increase in responsibility with parallel fears of harming a patient, litigation and losing their NMC registration, all as a result of making an error. They had an often self-imposed pressure to gain more knowledge and develop more skills, so they could maintain the high standard of professionalism and patient care they held and not be a slowly performing burden to the team they were trying to fit in with.

Evident from the quantitative data only, increased age was associated with a reported decrease in the total frequency of stressors at the point of qualification. Participants who entered nursing with a Diploma nursing qualification also reported significantly less total frequency of stressors at the same point in time. For younger participants and/or those with a Diploma nursing qualification, the sources of stress were ‘death and dying’, ‘conflict with physicians’, ‘inadequate preparation’ and ‘uncertainty concerning treatment’. Additionally, for both variables the result was not significant at six or twelve months post-qualifying.

For participants that had healthcare experience from employment prior to commencing their nurse education, they reported a significantly lower total frequency of stressors at the point of qualification and at twelve months post-qualifying compared to participants that did not have previous experience. At the point of qualification, participants with previous healthcare experience reported less frequently occurring stress from ‘conflict with physicians’, ‘conflict with other nurses’, ‘lack of support’ and ‘uncertainty concerning treatment’. At twelve months

post-qualifying, they still reported less stress from ‘conflict with physicians’, but they also reported less stress from their ‘workload’ as well.

6.4 Coping strategies (quantitative)

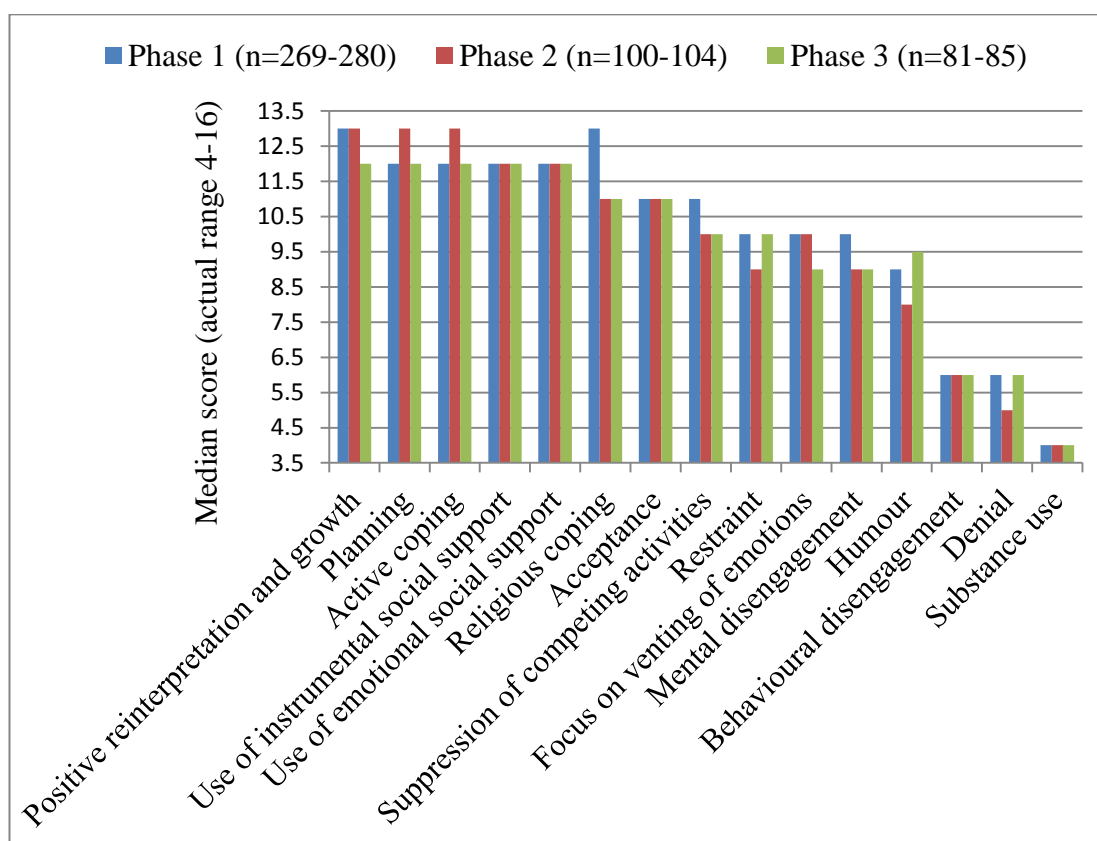
Coping strategies were determined from the COPE Inventory. The scale consists of fifteen subscales, each containing four items. Each item is scored on a Likert scale of ‘1= I usually don't do this at all’ to ‘4= I usually do this a lot’. An overall value for each subscale is calculated by summing each subscale’s constituent questions (Carver, Scheier and Weintraub, 1989). The COPE Inventory does not allow for the calculation of a total coping score. Consequently, each subscale was analysed separately and in relation to each other. The distribution of the calculated values for the fifteen subscales for each phase were checked using a range of tests and procedures provided by Pallant (2013). The outcome cast doubt on the normality of the distribution for all subscales, at all phases. As a result, non-parametric tests were utilised in the analyses of coping.

The median (SD) results for each coping strategy, for each phase, are presented in Table 6.3 and further illustrated in Figure 6.2. The results show that the most-used coping strategies are the problem-focused strategies: ‘planning’, ‘active coping’ and ‘use of instrumental social support’ and the emotion-focused strategies: ‘positive reinterpretation and growth’ and ‘use of emotional social support’. The least-used coping strategies were ‘substance use’, ‘behavioural disengagement’ and ‘denial’.

Table 6.3 COPE Inventory subscales median scores at Phases 1-3

COPE subscales (score range 4-16)	Phase 1		Phase 2		Phase 3	
	Median (SD)	n	Median (SD)	n	Median (SD)	n
Positive reinterpretation and growth	13.00 (2.17)	278	13.00 (2.26)	101	12.00 (2.25)	85
Planning	12.00 (2.42)	279	13.00 (2.47)	100	12.00 (2.56)	84
Active coping	12.00 (2.32)	273	13.00 (2.39)	100	12.00 (2.26)	82
Use of instrumental social support	12.00 (2.47)	279	12.00 (2.61)	101	12.00 (2.74)	85
Use of emotional social support	12.00 (3.10)	280	12.00 (2.98)	104	12.00 (3.14)	81
Religious coping	13.00 (4.85)	279	11.00 (4.83)	104	11.00 (4.79)	85
Acceptance	11.00 (2.39)	276	11.00 (2.36)	103	11.00 (2.58)	85
Suppression of competing activities	11.00 (2.12)	269	10.00 (2.47)	101	10.00 (2.43)	82
Restraint	10.00 (2.34)	274	9.00 (2.30)	101	10.00 (2.21)	83
Focus on venting of emotions	10.00 (2.91)	271	10.00 (2.75)	105	9.00 (3.03)	85
Mental disengagement	10.00 (2.20)	277	9.00 (2.29)	101	9.00 (2.34)	84
Humour	9.00 (3.25)	273	8.00 (2.92)	102	9.50 (3.21)	82
Behavioural disengagement	6.00 (2.36)	277	6.00 (2.12)	103	6.00 (2.10)	83
Denial	6.00 (2.83)	278	5.00 (2.78)	100	6.00 (2.34)	83
Substance use	4.00 (1.97)	278	4.00 (1.90)	104	4.00 (2.01)	85

Figure 6.2 COPE Inventory subscales median scores at Phases 1-3



Graphically, the results appeared to suggest that the degree to which a coping strategy was used did not change over twelve months. However, this was tested statistically using the ‘Friedman Test’, the ‘one way repeated measures ANOVA’ non-parametric equivalent (Pallant, 2013). Participants who had complete datasets for all three phases for each subscale were included in the analysis (n= 59-64). The results showed there was no significant difference between each time point over the first twelve months post-qualifying for each of the fifteen subscales.

6.4.1 Participant demographics and coping strategies

The relationship between coping strategies and the age of the participants, the nursing qualification they obtained and the relevance of healthcare experience prior to commencing their nurse education were all statistically analysed. There were few significant differences identified and only those associated with age are worthy of note.

‘Spearman’s rank order correlation’ was used to analyse the association between age and each of the coping strategies, at all three phases. The significant results of the analysis are presented in Table 6.4. The results showed that at Phase 1, increased age was significantly ($p < 0.05$) associated with a reported increase in the use of ‘active coping’, ‘suppression of competing activities’, ‘religious coping’ and ‘denial’. Additionally, at Phase 1, ‘positive reinterpretation and growth’ and ‘planning’ were highly significantly ($p < 0.01$) associated with increased age. None of these coping strategies was significantly associated with age at six months post-qualifying. However, at twelve months post-qualifying, ‘active coping’ and ‘planning’ were significantly ($p < 0.05$) associated again.

Table 6.4 Significant correlations between age and COPE Inventory subscales at Phases 1-3

COPE subscales	Phase 1		Phase 2		Phase 3	
	r	n	r	n	r	n
Mental disengagement	-0.14*	247	-0.29**	93	0.06	77
Substance use	-0.20**	246	-0.02	95	-0.18	78
Planning	0.25**	247	0.15	92	0.25*	77
Active coping	0.14*	243	0.08	91	0.26*	75
Positive reinterpretation and growth	0.17**	248	0.11	93	0.16	78
Denial	0.14*	247	0.04	91	0.005	76
Religious coping	0.20*	249	0.10	95	0.06	78
Suppression of competing activities	0.15*	238	-0.03	92	0.05	75
* $p < 0.05$						
** $p < 0.01$						

Conversely, at Phase 1, increased age was significantly associated with a decrease in the reported use of ‘substance use’ and ‘mental disengagement’. The negative correlation between age and ‘mental disengagement’ was the only correlation evident at six months post-qualifying, though the association was not evident at twelve months post-qualifying. All the significant positive and negative correlations were weak as the effect size was small (Cohen, 1988).

6.4.2 Coping strategies and the total frequency of stressors

‘Spearman’s rank order correlation’ was used to analyse the relationship between the total frequency of stressors and each of the coping strategies, at all three phases. The significant results of the analysis are presented in Table 6.5. At Phase 1, there was a significant ($p < 0.05$) positive correlation between the total frequency of stressors reported and the use of ‘focus on venting of emotions’ and ‘substance use’, and a highly significant ($p \leq 0.01$) positive correlation with the use of ‘behavioural disengagement’ and ‘mental disengagement’. Additionally, there was a negative correlation with ‘religious coping’ suggesting that increased use of ‘religious coping’ was associated with a decrease in the reported total frequency of stressors. At Phase 2, the positive association between the total frequency of stressors and ‘focus on venting of emotions’, ‘substance use’ and ‘behavioural disengagement’ was still evident. However, ‘suppression of competing activities’ was highly positively correlated with the total frequency of stressors. There was no association identified between the total frequency of stressors and the use of any coping strategy at Phase 3.

Table 6.5 Significant correlations between the total frequency of stressors using the Nursing Stress Scale and COPE Inventory subscales at Phases 1-3

COPE subscales	Phase 1		Phase 2		Phase 3	
	r	n	r	n	r	n
Behavioural disengagement	0.19**	203	0.32**	75	0.07	69
Focus on venting of emotions	0.15*	204	0.27*	76	0.18	70
Substance use	0.14*	203	0.26*	76	0.19	70
Mental disengagement	0.22**	203	0.29	75	0.12	69
Suppression of competing activities	-0.02	199	0.29**	73	0.00	67
Religious coping	-0.15*	202	-0.16	76	-0.07	70
* $p < 0.05$ ** $p \leq 0.01$						

6.5 Coping strategies (qualitative)

At Phase 4, participants were directly asked in an interview what coping strategies they used to address their work-related stressors. This direct questioning produced a

range of responses from the participants. More coping strategies were determined through thematic analysis of the interviews. This suggested that participants used more coping strategies than they were consciously aware of. The coping strategies identified through the analytical process were reinterpretation, problem-solving, sharing, relaxing and avoidance (see Appendix 16).

6.5.1 Reinterpretation: analysed it and turned it round

Central to this theme was participants used a process of reflection about a situation and themselves and others within the situation to interpret then neutralise the impact the situation had on them.

“I have analysed it, turned it round, thought of the different ways someone could have meant it, something they said, something they did. Did they mean it that way? Have they forgotten about it already? Was it something else why that happened? And then I will let it go. And then I will be alright.” A15

Over half the participants demonstrated how they used reflection to attempt to reinterpret and neutralise the incivility of a person in their job location. This resonated with the stressor sub-sub-theme ‘incivility: it’s not the job, it’s the people you work with’ (see Section 6.2.2.1). For some participants, coping with the unacceptable behaviour/attitude as they regarded it, had been specifically directed towards them or they had witnessed it being directed towards others.

“...one of the nurses, and it is a cultural thing with her, she can come across quite aggressive when she’s speaking to people on the phone. You hold the phone away from your ear, but I appreciate that I don’t think she means any harm whatsoever...” B98

This coping strategy was most frequently deployed to explain and justify the perceived incivility demonstrated by their manager. Participants detailed a range of reasons to try and offset incivility from their manager. For some, their manager had a stressful job and was unsupported in their managerial role. Other reasons given by participants were that the manager was only trying to maintain high standards of

professionalism and patient care, it was only happening because they had to manage the ward, or it was because the manager had personal issues in their home-life.

“We got a lot of friction from the ward manager. I think he had a stroop that he lost twelve of his beds... He was good. He’s not all bad. It’s just I don’t think he liked the fact that his ward was sort of split up...” A23

“I sort of got this bit of energy that said to me, ‘no, don’t give him [manager] that much power.’ You know, that’s just who he is. Probably something has happened at home and he is taking it out on me.” A15

Participants illustrated reinterpreting the incivility of others in relation to the team they worked with and the patients they served.

“...we’ve got nothing compared to what they [surgeons] go through. All we get is probably people swearing at us... Think about what they’re going through if a patient has gone through an operation, it didn’t go well, it’s on their head. It’s not about you... you wouldn’t want to be in their shoes, trust me.” B89

“...dealing with abusive patients and I have had a lot of racist comments... you have to see, look at the context of it, the patient has got Alzheimer’s and that sort of thing and they are going to make these comments. You have to use your judgement.” D266

Participants demonstrated reinterpretation by constructively assessing themselves when analysing a situation. Some participants would put the situation into perspective by acknowledging that they did not know something because they had only been qualified twelve months, they were still learning, or that all newly qualified nurses will display different knowledge.

“I guess that depends where you work as well. You are going to come across different things. ...I think, ‘no, if I worked in that ward I would know, wouldn’t I.’ It is only because I don’t work there, so I don’t feel too bad.” A15

6.5.2 Problem-solving: I sorted the problem

Participants discussed how they would identify and address a work-related problem or situation, but they did it in two ways: directly address the problem or indirectly address the problem by addressing themselves. Participants would utilise a practical, active approach to directly address a situation or a problem. Sometimes the solution to the problem had been offered by a work colleague as a possible way forward. However, more commonly it was evident that the solution was self-generated. Participant C129 repeatedly demonstrated this type of approach. They stated how they had either reported or confronted individuals who had been uncivil towards them. This participant also said how they would say what they wanted, rather than not revealing. This was a coping strategy that this participant had developed for themselves and then increasingly deployed because they had found it had brought what they regarded as successful outcomes.

“Her [manager] approach is a bit undermining. Sometimes it feels like she’s treating you like a child. I did have a word with her about it. I said, ‘please, next time, please don’t talk to me that way’ and she apologised.” C129

“I go in in the morning about 7.30am; that is my own choice. I don’t expect anything for that. It is because I choose to do it because it is quiet. I like to get my list, go through the list, plan my journey.” D266

In directly addressing a problem or situation it was also evident in participants that they actively sought advice and guidance from others, predominantly work-based colleagues such as nurses including senior nurses and long-serving nurses, their manager and doctors. For participant C133, it was trusted family and friends, while for participant B56, it was from anyone.

“I have spoken to my ward manager about it... She said, ‘what you need to do is...’ She was really good. She did make me feel a lot better...” A23

Participants described coping strategies that related to managing themselves rather than attempting to directly address the work-related stressor. Some participants discussed how they would deliberately control what they said or did in front of the team they worked in, in order to manage the potential of receiving more incivility.

Several participants described sternly and sometimes critically talking to themselves because they were unhappy with themselves at how they perceived they were badly coping with work-related stressors, rather than addressing the stressor.

“...not to draw attention. The other thing I did was, well, I tried to hide things I was doing. Like, if I was doing observations the way we were meant to be doing them, I’d try and do it secretly...” D283

“I was crying. I got to the point where he [manager] had upset me so much during the night shifts that I had to go off and have a little cry. You know, I am a grown woman and I was like, ‘for God’s sake!’” A15

The most radical illustration of indirectly addressing the problem by addressing self was demonstrated by participants A24 and C133. They both decided their best option to manage their work-related stressors was to resign from their job location and thus remove themselves from the source of their stress.

“...they [HCAs] wound me up once too often and I just exploded on the ward, which I thought, ‘I can’t be doing this.’ I can’t have this and it was really a final... There were two things that happened in the final week of me being able to put up with it that determined that I’ve got to get out of here because I can’t stand it... I was just getting nowhere every single day. I was getting nowhere and there was nowhere to go to.” A24

“I just got to the point I thought, this isn’t worth it...” C133

6.5.3 Sharing: talk about everything to everybody

All except one participant reported using ‘talking’ in relation to work-related stressors. This made ‘talking’ the most frequently used and the most consciously used coping strategy. Within the job location, the nurses they worked with were the individuals participants spoke to most. Participants indicated that being able to trust the person to keep information they revealed confidential was important suggesting participants were selective in what they said and to whom. No participant indicated that they utilised their manager for this purpose.

“...everybody in that [community team] office you can talk to and there are people there that you can talk to in confidence. You just say, ‘look, I don’t want anybody to know, but this has happened and I am feeling a bit stressed.’” D266

More frequently participants identified individuals outside their job location to whom they would talk. The family of participants constituted individuals they would talk to about work-related stressors. This included husband/wife/partner, children, parents, boyfriend or those they regarded as their family. As stated by participant A15, immediate accessibility to be able to talk may have influenced why these individuals were spoken to by participants. For some participants it was important for that individual to have an understanding of nursing or the healthcare environment. As a result, participants would talk to family, relatives or friends that were nurses. This was at least one reason why participants talked to newly qualified nurses from their nurse education cohort about work-related stressors, as illustrated later in this subsection. More broadly, a few participants stated they had spoken to a religious leader, Union representative, General Practitioner and staff at the NMC.

“I’d say my husband pretty much gets the most of it. Yeah, because he’s there straightaway.” A15

“I talk about everything with work. Because my parson, she’s not really a counsellor, but you can talk to her... so when I feel stressed, I just go, ‘oh, I’m just so stressed out, this is my problem’ and she just speaks to me... about work and then just puts it together, being a Christian how you’re supposed to be, so that really, really helps.” B56

Some participants expanded on why they talked to others. When other newly qualified nurses were utilised it was because of a sense that they were “*in the same boat*”, there was commonality in experience and understanding. Participants used talking as a problem-solving strategy to ascertain ways to manage problems and to gain advice. Indeed, for a few participants, they used talking to others to check if the stressors they were experiencing were acceptable.

“I do talk with my friends. Outside work, she’s my colleague. We graduated together and I talk to her and it’s a kind of we speak every day and then she

tells me and I tell her, 'this is what is happening, do this, do that.' I think when I'm talking about things now, if she wasn't there, what would I do because when I talk to her, I get it out of my mind..." C129

"What it is, is talking because if you keep it in, it is not going to change anything. If you talk about it then sometimes, obviously, there is a solution or something. It does help because you can find other people in the same sort of situation." D266

Some participants identified that sometimes they chose not to talk to others regarding work-related stressors. This was because it was their usual tendency not to talk and reveal, especially to those that might not understand.

"It's hard because none of my family are medical or health professionals... I might pass an odd comment or say, 'it's been a bad day because this or that.' I tend to keep it private really because they don't understand." B98

"I find I don't want to talk about it really because it will be there again in the morning. I feel like I am moaning. Sometimes I write, I write a journal sometimes. That's something I try and keep up with as much as I can. I do find it's a way of getting it out of my system." B104

6.5.4 Relaxing: relaxation strategies

The relaxation strategies participants deployed to manage work-related stressors were subdivided into those utilised within the job location and those used outside the job location. Inside the job location participants strategically used meal/rest breaks as a coping strategy. The break was used for body-related reasons and as a way of removing themselves from a stressful encounter.

"Even it's just for fifteen minutes, just to clear your mind and come back, and that really, really helped because when I thought it was getting too much, even if I'm not hungry, let me just go and sit down, take time out and come back, and when I come back I actually do feel energised..." B56

“There are quite a few times where I have just escaped into a cubicle and just wanted to cry... count to ten and then go back out. I had to do that quite a few times because it can just be awful.” A23

Participants based in the community highlighted a unique relaxation strategy in that they used the time commuting between patients as a time to process stressors.

“...I walk to all my patients, I don't drive, I enjoy walking. ...you have time to purposely walk through the park because you could go from A to B, but that's on main roads and lots of cars and you think, well, let me walk through the park because there's trees and the grass, have time to just chill before the next patient.” C185

“...you can get in your car, go to your next patient, by the time you are there you've left that behind. Whatever was stressing you out a little bit, it's gone. You've dealt with it in your head, you've driven your car and you're at your next patient, all ready for them.” A24

Outside of the job location participants used a range of relaxation activities to combat stressors. Physical activity (walking, running), playing loud music, taking a bath on returning home and cooking were all cited examples. However, a few participants described how the impact of work-related stressors reduced their utilisation of previously used relaxation strategies.

“I did used to do running, but I didn't do it because I was stressed. But sometimes I feel like I have to go running just to de-stress...” A23

“...motivation is a problem, so trying to actually do something to take my mind off of things from work and actually getting the motivation to do it, because I can't be bothered. ...because a lot of the time I'm physically and mentally exhausted...” C155

Straddling both inside and outside the job location, a few participants highlighted their use of planned annual leave as a method of relaxing away from their job location.

“I know myself when I’m starting to feel... too much... So then, even if it’s just a couple of days, I would request a couple of days just to switch off from the bank, recharge the batteries and then come back.” B98

6.5.5 Avoidance: avoiding the problem

Sometimes participants were aware they were deliberately avoiding or denying work-related stressors. However, they rarely identified this as a coping strategy when directly asked what coping strategies they used. The analytical process identified three different ways participants avoided work-related problems: they used deliberate strategies at work to avoid a problem or the source of the problem, they ignored the problem or the reality of the problem by wishful thinking and daydreaming, and they compartmentalised by leaving work problems at work instead of bringing them home.

At work, avoidance strategies were shown in different ways by participants. Some participants deliberately avoided work colleagues who had previously shown incivility towards them. Participant A23 had developed an anticipatory fear of relatives and consequently deliberately took their meal/rest breaks during visiting hours and worked more night shifts in order to limit interacting with relatives. Participant D283 took three days off sick and participant C138 used their annual leave. Both of these participants took these actions to avoid being at their stressful job locations.

“I decided never to do a night shift with her [Band 6 nurse]. I always make sure when I request my rota, I wait for her to do her request and then I do mine. I don’t feel safe at all with her.” C129

“...the only time I took off, I took three days off and that was just because it was too much, emotionally and psychologically. It was very draining, tired all the time because you don’t switch off, it’s hard to switch off.” D283

A few participants showed avoidance by using the phrase: “*head down and get on with it*”. Indeed participant D283 stated how they were told to do this by the Matron when they had informed Matron they were experiencing difficulties.

“...the Matron just said, ‘get on with it, get your head down and get on with it, you’re newly qualified. I don’t want to hear all this nonsense, get back’ [to the ward].” D283

“...you come in on your shift, you get your head down and you get on with it.” A24

Wishful thinking and daydreaming of change and improvement was repeatedly evident for some participants. Only participant C138 demonstrated this in direct regard to the job location by hoping that the next shift would be better than the last or that the job would improve without any reasoning behind this hope. Wishfully thinking and daydreaming was more commonly demonstrated in relation to resigning and changing job location or changing their career away from the nursing profession.

“Now I’m thinking... should I just go, even looking in like Tesco’s™, shall I get a job in Tesco’s™? I could be a First Aider... every day you’re hoping that the shift’s going, it’s going to get a little bit better.” C138

“Oh, I have! [thought about resigning] Yeah! I have all the time really, on and off.” B104

Some participants felt that they were able to leave work-related matters in their job location and did not take them home in any way. They felt that work and home should be kept separate and they were able to achieve this. However, there was evidence in their interviews that most of them did not always achieve this clear division between home and work, though they did not appear to recognise the contradiction in what they were saying.

“If I get picked up from work I tend to have a little rant in the car and by the time I’m home it’s out of my system, because I try not to bring it home with me because that is just not going to help. You just need to leave work where it is and just go home.” A23

“No, I don’t bring it home with me. No, I walk out the front door [job location] and the first thing I do is I call her, call this friend and say, ‘look, this is what happened to me today.’” C129

6.6 Merged analysis of coping strategy results

The quantitative results showed that there was no significant difference at each time point over the first twelve months post-qualifying for each of the fifteen different coping strategies (subscales). The results also showed that the most-used coping strategies were the problem-focused strategies: ‘planning’, ‘active coping’ and ‘use of instrumental social support’ and the emotion-focused strategies: ‘positive reinterpretation and growth’ and ‘use of emotional social support’. The least-used coping strategies were ‘substance use’, ‘behavioural disengagement’ and ‘denial’.

Thematic analysis of the Phase 4 data generated five themes of coping strategies reportedly used by the participants to cope with work-related stress. This was considerably less than all the possible coping strategies in the COPE Inventory suggesting participants used more coping strategies than they were consciously aware of or able to articulate. There were similarities, a complimentary outcome, between some of the coping strategies of the COPE Inventory and the themed coping strategies determined from the Phase 4 data. ‘Positive reinterpretation and growth’ from the COPE Inventory bore similarity to ‘analysed it and turned it around’, where participants used a process of reflection about a situation to interpret and neutralise the impact the situation had on them. This was frequently used to manage workplace incivility.

‘Planning’ and ‘active coping’ from the COPE Inventory were evident in ‘I sorted the problem’. Phase 4 participants actively worked out how to manage a problem, but sometimes they showed they did this by managing themselves, rather than changing or solving the issue.

‘Use of instrumental social support’ and ‘use of emotional social support’ from the COPE Inventory were reflected in ‘talk about everything to everybody’. All except

one participant reported using talking in relation to work-related stressors making it the most frequently discussed and thus the most consciously used coping strategy by Phase 4 participants. Analysis of the qualitative data suggested Phase 4 participants used talking as a problem-solving strategy to ascertain ways to manage problems and to gain advice.

There was thematic resonance between ‘behavioural disengagement’ from the COPE Inventory and ‘relaxation strategies’. However, qualitatively, it took a much more constructive stance where participants used strategies inside and outside the job location to counteract stressful feelings. There was also some similarity between ‘behavioural disengagement’ and ‘denial’ from the COPE Inventory and ‘avoiding the problem’, although within this theme, there was wishful thinking, a coping strategy not represented in the COPE Inventory.

There were few significant correlations between the total frequency of stressors and the utilisation of specific coping strategies. The associations that were identified were predominantly seen at the point of qualification. At this point, only the increased use of ‘religious coping’ was associated with a reduction in reported stressors, while ‘focus on venting of emotions’, ‘substance use’, ‘behavioural disengagement’ and ‘mental disengagement’ all increased as stressors increased. These associations were not overt from the qualitative data analysis.

Evident from the quantitative data only, there were very few significant relationships between coping strategies and participant demographic variables of which only those pertaining to age were worthy of reporting. Increased age was associated with less reported use of ‘substance use’ and ‘mental disengagement’ as coping strategies at the point of qualification, and increased reported use of ‘active coping’ and ‘planning’ at the point of qualification and twelve months post-qualifying.

6.7 Structural social support

Structural social support, also called a social network, is who the participants turn to as part of their management of work-related stressors. It was determined by

providing the participants with a list of possible sources of support within the package of questionnaires at Phases 1-3. Participants were instructed to tick as many sources of support that they felt they utilised in relation to their work-related stressors. The list had been trialled as part of the pilot study (see Section 4.5) to ensure that it was exhaustive, but participants were still given the option of writing any other source of support not provided in the list. There were very few additional sources written by participants. At Phase 1, three participants wrote 'God' and one participant wrote 'dog'. At Phase 2, one participant wrote 'human resources'. There were no additional sources indicated at Phase 3. This suggests that the list of possible sources of structural support utilised in relation to work-related stress by the participants was exhaustive and the resultant analysis would represent all the members of their social network that they used for this purpose.

On average participants used 4-5 different sources of support to assist with work-related stressors (range 0-11). Table 6.6 shows the percentage of participants that indicated that they used a particular source of support at each phase.

The results show participants utilised husband/wife/partner, friends and nursing colleagues the most as sources of support over the first twelve months post-qualifying. One of the least-used sources of support was 'former nursing student colleagues'. This result can be linked to the sub-sub-theme 'comparing and being judged' identified within 'personal experiences of transition' (see Section 5.2.3) where participants compared themselves, their experiences and opportunities to other former nursing students, but there was no suggestion from the data analysis that their involvement with their former student colleagues was a coping strategy or a source of support for work-related stressors. A source of support that was utilised at all three phases was 'your teacher'. This was an unexpected result given that at Phases 2 and 3 the participants were unlikely to be attending and studying at the HEI where they had undertaken their nurse education.

Table 6.6 The percentage of participants that indicated they did use a specified source for work stress-related support at Phases 1-3

Categorisation of the source of support	Source of support	Percentage (%) indicating they did use the source for support (n= total number responders to the question)		
		Phase 1 (n= 275)	Phase 2 (n= 90)	Phase 3 (n= 79)
Work-based support	Nursing colleague	56	73	76
	Non-nursing work colleague	24	32	38
	Your manager	26	43	39
	Union representative	7	12	13
Family-based support	Husband/wife/partner	60	66	68
	Parent(s)	49	50	51
	Your child/children	20	11	11
	Sibling(s)	33	33	33
	Grandparent(s)	8	8	8
	Other relative/family member	32	27	18
Friend-based support	Friend(s)	65	72	66
	Social networking friends	11	8	11
	Former nursing student colleague	n/a	3	5
Faith/religion-based support	A member of your faith/religion	22	52	48
HEI-based support	Your teacher	12	12	18
Therapy-based support	Your counsellor/therapist	6	2	1

6.8 Functional social support (quantitative)

Functional social support is for what purpose participants' access their structural social support. Determined from the MOS Social Support Survey, the scale consists of four subscales: 'emotional/information support', 'tangible support', 'affectionate support' and 'positive social interaction' and one standalone question. It is scored using a Likert scale where '1= none of the time' up to '5= all of the time'. This represents the purpose and the degree to which different types of social support are regarded as available to the participants. An overall value for each subscale is

calculated by summing each subscale's constituent questions. Total social support, called the 'overall support index', is calculated by averaging the scores to all nineteen questions (Sherbourne and Stewart, 1991).

The distribution of the calculated values for the four subscales and overall support index for each phase were checked using a range of tests and procedures provided by Pallant (2013). The result was that there was a lack of normal distribution throughout. The vast majority of participants at each phase tended to score their responses at the higher end of each subscale. As a result, non-parametric tests were utilised in the analyses of functional social support.

The median (SD) results for each type of support at each phase are presented in Table 6.7. The results show that participants at each phase reported a high level of different types of support available to them, further reflected in a high overall support index. To determine if the reported availability of functional social support changed over twelve months, the 'Friedman Test' was used, which is the 'one way repeated measures ANOVA' non-parametric equivalent (Pallant, 2013). Participants who had complete datasets for all three phases for each subscale and the overall support index were included in the analysis (n= 58-65). The results showed there was no significant difference between each time point over the first twelve months post-qualifying for each social support subscale or the overall support index.

Table 6.7 MOS Social Support Survey median scores at Phases 1-3

MOS Social Support Survey subscales and total	Score range	Phase 1		Phase 2		Phase 3	
		Median (SD)	n	Median (SD)	n	Median (SD)	n
Emotional/information support	1-5	4.25 (0.95)	283	4.38 (0.83)	105	4.50 (0.95)	85
Tangible support	1-5	4.00 (1.14)	283	4.25 (1.17)	105	4.00 (1.11)	85
Affectionate support	1-5	4.67 (1.03)	283	4.33 (0.97)	105	4.67 (1.05)	85
Positive social interaction	1-5	4.33 (0.99)	283	4.33 (0.90)	105	4.67 (1.03)	85
Overall support index	1-5	4.21 (0.88)	261	4.45 (0.86)	96	4.26 (0.93)	82

6.8.1 Participant demographics and functional social support

The relationship between functional social support and the age of the participants was investigated. (Healthcare experience prior to commencing their nurse education and nursing qualification were not tested as they were not considered relevant to functional social support.) ‘Spearman’s rank order correlation’ was used and the results show that the older the participant, the less reported social support they had of any kind (Table 6.8). The correlations were weak as the effect size was small (Cohen, 1988). There were no significant correlations at Phases 2 and 3.

Table 6.8 Correlations between age and MOS Social Support Survey at Phases 1-3

MOS Social Support Survey subscales and total	Phase 1		Phase 2		Phase 3	
	r	n	r	n	r	n
Emotional/information support	-0.14*	252	-0.15	96	-0.10	78
Tangible support	-0.12*	252	-0.13	96	-0.06	78
Affectionate support	-0.16**	252	-0.13	96	-0.09	78
Positive social interaction	-0.29**	252	-0.16	96	-0.12	78
Overall support index	-0.16*	233	-0.18	89	-0.11	75
*p≤0.05						
**p≤0.01						

6.8.2 Functional social support and the total frequency of stressors

‘Spearman’s rank order correlation’ was used to analyse the relationship between the total frequency of stressors and each type of functional social support as well as the overall support index, at all three phases. The result was that there were no significant correlations ($p > 0.05$) at any time point during the first twelve months post-qualifying. The reported availability of functional social support was not associated with the total frequency of stressors they reported.

6.9 Support in action (qualitative)

At Phase 4, ‘support’ was a repeatedly used word by participants and was frequently used in conjunction with their workplace experiences as a newly qualified nurse.

Both structural and functional social support were evident in the data constituting who was supportive and what they did that was supportive. The overarching theme was titled ‘support in action’ to capture the active nature of support conveyed by participants. Unlike what has been highlighted earlier in this chapter in the stressor themes ‘feeling terrified and criticised’ (see Section 6.2.1.1) and ‘incivility: it’s not the job, it’s the people you work with’ (see Section 6.2.2.1), as well as one of the personal barriers during transition, ‘feeling a bit alone’ (see Section 5.4.1), ‘support in action’ generally showed positivity. It conveyed the support the participants had been given that had made a positive difference to them in their workplace. There were three sub-themes identified: ‘the ‘good’ team: you’re not alone’, ‘the manager is key’ and ‘preceptorship’.

6.9.1 The ‘good’ team: you’re not alone

The phrase the ‘good’ team was used by three quarters of the participants at Phase 4, who conveyed how important it was to them and how it made them feel to be part of a ‘good’ team. They also described the features of a ‘good’ team.

“...we have got such a good team...” A23

“As long as you have a nice team. I think that is such an important thing.” A15

Participants were impressed when support was in place for them ahead of their arrival; for example, a mentor was already allocated and/or a preceptorship programme had already been planned. Indeed, for participant B56, they had received a letter on accepting the job offer that stated what support arrangements had been made for them, which allayed anticipatory fears.

“...they even sent a letter... it outlined who my mentors was, who the buddy was and what team you’re in. ...it made me feel that at least when I get there I won’t be on my own. There are people I can ask and talk to.” B56

A few participants noted how they had felt supported from their first day in their new job. Participants described how they were made to feel welcomed through words

and actions. Participant C133 noted this in contrast to their first qualified nurse job. This was particularly positively appraised when the welcome extended beyond the manager and nursing team and was from staff in the wider organisation.

“...the first couple of days, it was just a case of come in, shadow us, see what we do... help yourself to tea and coffee, a drink. If it gets too much and you want a break, that’s fine, say so.” C133

“...we had the Director of Nursing who came to introduce, the District Nurse Lead came to introduce, all the other community Matrons and they gave us an insight into their role and that they were there for us support-wise. Just because we don’t see them, they are around. Just because they are up there, they do know we exist, which was really, really nice and very, very good.” D266

The positive feelings participants had about being part of a ‘good’ team seemed to stem from feeling they were an active and valued part of the team, rather than excluded by the team. As a consequence, participants noted how it produced additional positive feelings towards their nursing roles and job location, and they felt less inclined to change job location.

“I feel I get on well and feel part of the team, appreciated I suppose a bit or I’m more like inclined to want to stay.” B104

These positive feelings were in complete contrast for participant A24, who had resigned from their first nursing job because of the chronic stressors they encountered.

“I love going to work in the morning... now I can stay in the job. I wanted to do well and I feel that I am doing it to the best of my ability and I keep on trying. ...I read up on stuff and I’ll always try and go the extra mile.” A24

There were a range of attributes displayed by the team when participants referred to their team in positive terms. General features of the ‘good’ team were that they were professional in their nursing roles, worked effectively together, were respectful of each other and offered each other consistent, reliable support.

“But my Band 5’s we’re a real good team and really tight. If one of them is having a problem we would all just ring each other. ‘I need help’ or ‘I’m

really behind, can someone take some work?’ Or if we finish our bit of list, we’ll ring each other, ‘right, what have you got left?’, rather than just letting them get on with it.” A24

“It’s just a well-run ward, very, very good team spirit. Everybody pulls together...” D283

Specific to newly qualified nurses, features of the ‘good’ team where that the opinion of a newly qualified nurse was valued as much as a more long-serving nurse. This was in contrast to the personal transition experience of some participants illustrated in ‘affecting the team’ (see Section 5.2.2). Additionally, the team allowed participants to take their time and to learn because their newly qualified status was recognised and respected.

“...they just respect your opinion. ...so long as you can go in and explain the reason and why you are doing it, what you think is going to be achieved through doing it. Then they’ll back you all the way.” A24

“They were very supportive. Lots of nurses said, ‘oh, take your time, don’t worry’, things like that. ...you are being allowed to be newly qualified, which I was on my ward.” A15

“...everything, from the most basic things, they [whole team] don’t assume that I know it.” D283

Approachability and accessibility were specific features identified. While for a few participants the whole team was approachable, it was more often senior members of staff that were identified: senior managers, manager, Matron and PDN. The reasons the participants wanted someone to be approachable was so that they could voice their concerns, ask them questions and be by their side to support and guide them in an aspect of patient care. When participants believed they worked in a supportive environment it enabled them to declare or have it recognised by others that they lacked some experience or knowledge on an issue without fearing that they would receive an uncivil response.

“...everyone on that team you could speak to from HCAs, the administrator, Sisters, Band 5’s, Band 6’s, Band 7’s, Band 8’s.” D266

“From our executive director, all the way down to our new manager and everything, everyone’s door is always open, everyone is always there. If you need anything they’re there and they will support you one hundred and ten per cent, they will.” B98

Participants provided a range of examples of where support had been actively demonstrated towards them. Nurses demonstrated through their actions and language that they wanted to help the participant and wanted them to succeed. They showed concern for the participants, asking how they were getting on and if they wanted help.

“...she [PDN] really, really showed it that, ‘I’m here to help you. I really, really want to get you through...’” B56

“I would get asked, ‘are you confident enough? Do you want to do this [theatre] case or do you want me to stay with you?’ So it’s being given the choice basically, so it’s down to me. It’s my decision. ...so I think it was good in that sense. There was a lot of support...” B89

Even when the participant had done something that needed to be improved, support consisted of educating and action planning for personal development, while being mindful of the fragility of confidence. This was noted by participant C133 as one of many illustrations of how their second job contrasted so markedly from their stressful first job that had led to their resignation.

“...if I had missed something or I had done something that wasn’t appropriate for the dressing, for example. They [District Nurse accompanying the participant] would do it in a nice way in front of the patient and then afterwards we would sit in the car and they would ask me, ‘how did you feel about that?’ and ‘maybe next time you might want to do this.’ So it is trying to build up your confidence really.” D266

[Following non-critical error on the participant's first drug round] "It wasn't patronising, 'you don't know what you're doing'... It's a case of, 'right, okay, you tried, we understand, you're still very newly qualified... we'll do it the way that it suits you' and that's been absolutely fantastic to know that they've not just said, 'well, that's it, we're not going to let you do it.'" C133

Likewise, this type of support was evident from long-serving nurses who used their knowledge of newly qualified nurses to anticipate where guidance might be required. This was in contrast to some long-serving nurses being a source of stress for participants as highlighted in 'incivility: it's not the job, it's the people you work with' (see Section 6.2.2.1)

"...with the experienced nurses... they didn't expect you to be on their level. They'd sort of anticipate the sort of things that you might not think about and just drop hints. 'Oh yeah, I didn't think about that. Yes, I'll go and do that.' There was no telling off, like you should've known that really." D266

6.9.2 Leadership: the manager is key

Of all the different members of a team, it was the manager that appeared very important to participants in influencing their work experience as a newly qualified nurse and within that, if they perceived they were part of a 'good' team.

"The ward manager is key I think..." D283

"...to make the team work better you have got to be wearing blue. That dark blue, it doesn't work otherwise." A24

There was evidence that the attributes and actions of the manager were being used by participants to role model how they wanted to perform in the future as a manager or leader of a team.

"If I could be anywhere like her [manager]. If I could have just a touch of what she has got then I'd be a very happy bunny because she's just one of these perfect nurses to me... really good." A24

The manager was positively regarded by participants if they had found them to be approachable and accessible, typically because the participant had a problem or a concern.

“...he [manager] is very approachable. He’s helped me out with quite a few situations and I couldn’t have thanked him more for helping me out on that because I just didn’t know what to do.” A23

“I phoned her [community manager] on a few occasions when I weren’t too sure. I didn’t want to harm my patients, patient care. ...she was very, very helpful, very.” C185

Conversely, being unapproachable, usually for meaningful support, was negatively regarded by participants. Participant C133 held this opinion because they did not trust their manager based on previous incidences directed towards them.

“...my Band 7, I would totally bypass him if I had a problem and go to the Lead Nurse because he weren’t interested. He was just not interested.” A24

“...I hated any shift that she [manager] was on. I tried to stay away from her because I thought that if I go near her, even just to ask a question, she’s going to look up at me and think of me badly.” C133

Participants seemed to want their manager to be inspirational leaders, in command of their team, yet at the same time be able to work alongside them and demonstrate that they could do the same direct patient care as they were required to do.

“We’ve now got the most wonderful Band 7, fabulous, who’s just so good and you can feel there is a buzz in the team now... we could be one of the best teams ever with her here.” A24

“...our manager is very, very good. Always you can get her when she is not working. You can email her, she always gets back to you if there is a problem, she will and she knows everything that is going on, even when she is not there.” D266

“She wasn’t one of those ward managers where it was paperwork, she loved hands on care. So if she saw you struggling with something she’d come and help you...” B56

Participants observed when the manager would ask the whole team how they were and if there were any problems or issues. However, participants welcomed the manager specifically checking how they were getting on, whether it was on a particular shift or in more general terms.

“The manager and team leaders, they are always asking how is it going?” D266

“...she [manager] was very supportive, even when you had a difficult patient. She would teach you how to deal with it... ‘If there’s anything you want me to do, let me know.’ She’d just pop in every so often, just to see how we were doing...” B56

Participants’ positively appraised the actions of their manager when it resulted in them feeling pleased with themselves and enhanced their confidence. They liked receiving praise from the manager, particularly if it was linked to the quality of their work or how hard they had worked on a busy shift.

“...talking to the Deputy Manager, who said to me, well done for the other night... So it’s very nice to hear that from her... rather than the negative, which I was getting day in, day out with this other job and I go home and I think actually, yeah, I’ve done good today. I feel good.” C133

“It is important when you’ve got a supportive manager and someone who appreciates what you’re doing. You’re not there to be praised or you don’t want any credit, but you want someone to acknowledge.” C129

Participants noticed when the manager facilitated their learning and development. This was most typically by offering the participant training and courses, though it was also by giving them constructive advice and guidance. For participant C185, they said how they felt *“chuffed”* because it was their manager that had assessed their competence to work in the community alone and had subsequently passed them.

“There were managers as well who would be encouraging, ‘I want you doing that IV’. You know, that was kind of encouraging...” B104

“He [manager] said... ‘I want you on your DN next year and your prescribing.’ [types of courses] And I thought... ‘I really appreciate that’. It really did me the world of good getting that from him.” A24

For a few participants, situations had arisen where they felt their manager had demonstrated an understanding of what the stressors were for a newly qualified nurse and they had attempted to try and lessen them.

[Just started Job 3 since qualifying] “...she [manager] is kind of treating me as a new person, easing me in, making sure I don't come under too much stress, but she's been lovely, really supportive.” D283

“...when a bed becomes available on another ward, she [manager] makes sure that patients get transferred first from your side, so you're not too stressed out.” B56

“I did have like a peri-arrest situation. He [manager] was fantastic and if it wasn't for him I would have been like, ‘oh my God’, but he was fantastic. He didn't leave me at all. He was helping...” A23

6.9.3 Preceptorship

Preceptorship was not a topic that participants were directly asked about in any of the four phases of this research. However, through the analysis of the Phase 4 data, preceptorship was identified as a sub-theme to ‘support in action’, though the experiences of participants were both positive and negative. ‘Preceptorship’ thematically captured what their understanding of preceptorship was, how it was organised and what they wanted and got from a preceptor. The preceptorship that the Phase 4 participants actually received, taken from analysis of the interview transcripts, is summarised in Appendix 17.

6.9.3.1 What (is) preceptorship?

No participant conveyed a clear understanding of what preceptorship should be and some were unsure if they were supposed to have some kind of preceptorship. Additionally, no participant attempted to compare what their experience had been to what they had expected.

“I think the whole idea is to have preceptorship for two weeks because what they said for the first six months or so, or three months, I’ll be with someone.” B89

“I was under the impression that you were meant to be under some kind of preceptorship. Nothing was mentioned at all. ...nothing, so it was just, I mean she [nurse allocated to work with the participant each shift] did my three weeks of supernumerary and then... [left to work alone]” C155

The lack of understanding of preceptorship appeared compounded for participants when preceptorship was visibly applied differently by individual ward managers within one organisation to newly qualified nurses that had all joined the organisation around the same time.

“I find some colleagues say they have that book [preceptorship document], not everything has been signed off and they’ve been there for nearly a year or over a year. Other people say it was given to them, but no-one took interest or they didn’t even do it.” B56

“I did ask about it [preceptorship document] but someone said to me, ‘oh, no, no, you don’t need that’, one of my colleagues, ‘no, no’ and then someone else said, ‘yes, yes, you need it.’ ...I did have an appraisal, but that was it.” B89

For a few participants preceptorship included their organisation’s initial induction. For the community-based participants, the initial induction programme seemed to dovetail into the six months preceptorship programme. Participant A24, in their second qualified nurse job after having spent six months in their first hospital-based post, illustrated this:

“See in the preceptorship period for six months, it was induction for two weeks. You do things like your syringe driver training. You do male catheterisation... Then you have to do a test on it and get that signed off. Then you have to go out with a supervisor for three times or as many as you feel you need actually to get it signed off in your booklet.” A24

For participants A24 and D266, induction was planned by a PDN. Even though they were in different community teams they both described sessions aimed at introducing key management personal and specialist community nurses that the participants would be working with, or who they may need to contact as part of their patient care. There were other sessions aimed at commencing the participant’s learning on the key speciality skills they would need, which would then be followed up with practice and assessment over the following six months. Conversely, for participants based in hospital Trusts the induction was poorly evaluated by the participants that mentioned it. The induction was generic to cater for all new employees to the Trust. There was no focus on clinical skills development or the specific needs of newly qualified nurses.

“The Trust induction thing didn’t happen until about a month in, so it seemed pointless by then. You had started on the ward and you were doing your job. It wasn’t designated for newly qualified nurses, so it wasn’t helpful at all. There wasn’t anything in that, which gave you any support.” A15

Irrespective of their understanding of the term preceptorship all participants referred to the person they had been allocated, or not as the case may be, as their ‘mentor’, a term that the NMC would regard as applying to a nursing student. Only two participants used the term ‘preceptor’ and even they predominantly referred to the same person as their mentor.

6.9.3.2 Organisation of preceptorship: looked good on paper

Positively appraised preceptorship was planned and co-ordinated by a named senior nurse. This most typically was a PDN. For participant B56, the PDN also took responsibility for teaching and assessing competence for many of their clinical skills, often working alongside the participant to facilitate this. Participant A24 praised

how their preceptorship programme had been adapted by the PDN following discussion of their self-identified strengths and weaknesses.

“We [five newly qualified nurses that started together] all had these different strengths and stuff and they were able to identify what those were. I was able to say as well, ‘this is where I feel weak’ and not be made to feel silly.” A24

Poor organisation or indeed no organisation of preceptorship was negatively viewed by participants. Some participants commented on how they had been allocated a preceptor who in reality was not accessible enough to fulfil the role. This was typically because the preceptor was too senior, part-time, or on leave. Consequently, a lack of support in action and feelings of isolation, a previously discussed personal barrier during transition (see Section 5.4.1) were compounded.

“I had a preceptorship, which on paper looked really good, in practice, it just fell apart... the person that was doing it went on maternity leave...” B98

“...I had lack of support, I had lack of mentoring. I saw my mentor who worked part-time, if I was lucky, once every three weeks, which was appalling really. When I did get to work with her, she was a Junior Sister and she was often stressed out, so that didn’t help.” C133

A few participants demonstrated how they had to organise their own preceptorship because their manager did not instigate it for them. This was because their manager had not attended to making arrangements or the manager did not place any value on preceptorship, in particular the associated documentation.

“I went straight to her [nurse], ‘can you please be my preceptor?’ ...and then I went to the manager and I said, ‘I chose [name of nurse] to be my mentor.’ Even the preceptorship pack, I had to ask my friend, go to the other ward and the Sister there printed it off for me, and that’s how I got hold of the preceptorship pack.” C129

“He [manager] just, he sort of said, ‘oh this is really for the ones that are struggling. You haven’t got to worry with it. You know, it’s just a tick box thing.’ People who didn’t maybe, didn’t get their skills signed off very well. It’s just all the skills again...” A15

Poor organisation was indirectly illustrated by a few participants in that their preceptorship seemed to have no end point as their preceptorship documentation was still incomplete or had not been submitted to anyone at the time of the Phase 4 interview. Participant B104 stated they had completed the documentation, but their manager had never asked to see it and made no reference to it during their appraisal meeting at twelve months post-qualifying.

“I don’t think it’s been signed off ...it was just my mentor, although we didn’t have time to sit down and do the documentation side of the preceptorship...” B98

Completion of the preceptorship documents for some participants was linked to an increase in their salary. While participants did not express an opinion about this, there was evidence that it did impact on their preceptorship experience and probably not in a beneficial way. There was no evidence from the participants that they needed to be incentivised to complete any aspect of preceptorship.

“There was no preceptorship. I had to fight to get my pack [preceptorship documents] done because until you get the pack done, you can’t get a pay increment. And it was just, ‘yeah’, tick, tick, tick, ‘there you go, yeah she’s okay, she’s okay.’” D283

Six months was regarded by participants as the correct duration for a preceptorship programme, but participants noted how it should not just end abruptly. Only community participants described a post-preceptorship phase where tangible support and organisational commitment to learning and development continued.

“The PDN, we usually contact every month. So after the preceptorship there was consolidation of compression bandaging, IV antibiotics, leg ulcer clinics, so it is ongoing...” D266

“If ever you are not comfortable doing something, it doesn’t matter if you have passed it, it doesn’t matter that you have got everything signed off. They will always have someone with you, if you want them to.” A24

6.9.3.3 Quality preceptoring: my go-to person who tests me

What participants wanted from their preceptor was for them to be their “go-to person” as participant C155 called them. This was someone who was identified for them, who would work with them to guide, teach and encourage them to aid their development, as well as be responsible for the completion of their documentation.

“...she [preceptor] would give me a patient load and she’d be observing and helping and making sure I know what I’m doing and teaching me new things.” D283

“My mentors are really, really good because they made you feel welcome and well she’ll actually... even though you knew their job was stressful and was hard, but the way they made it seem, it was like, ‘oh I can do it, I can do it!’” B56

The length of time the preceptor directly supported the participant was positively appraised when it was individualised and the participant was consulted on how they felt they were developing. It was negatively appraised when it was for a set, short amount of time and irrespective of how the participant felt they were developing, it ended abruptly.

“My preceptorship finished back in April and then you have an interview at the end. ‘How do you think it’s gone?’” A24

“...when I first started I was supernumerary for three weeks, so I was working directly under another nurse and then after that three weeks finished... it was kind of like, ‘okay you’ve had your three weeks, off you go’...” C155

Completion of the competencies in the preceptorship documents was welcomed by a few participants. This was because it provided them with tangible evidence of their progress and development over their initial months post-qualifying. However, some participants noted how they wanted to be extensively tested before a competency was signed by their preceptor as it made their achievement meaningful and provided them with proof that they were competent.

“...she [PDN] will sign it off after she feels confident that you can be left on your own... she’ll also work with you... and show you things and say, ‘okay, so if you were on your own here and this was to happen, what would you do?’ So she’d prove that you’re confident...” B56

“My preceptor did do some skills with me and then when she grilled me on everything, every little observation, blood pressure, ‘why would it be high?’ ‘Tell me more, tell me more, tell me more!’ She was fantastic.” D283

A few participants illustrated the difficulties they had completing their preceptorship documentation. Sometimes this was because they were required to show competence in a skill that was not readily available in their job location. The other main reason was reluctance by some nurses to assess and sign the documentation.

“...did my mentor even sign my book? No, it was someone else that signed my book. I got the PDN to sign my book and I had other mentors sign my book...” B56

6.10 Merged analysis of social support results

On average participants utilised four to five different categories of people in their social network to cope with work-related stressors. The most commonly used sources were nursing colleagues within the workplace, husband/wife/partner and friends. The results also showed that some participants were still utilising their HEI teacher for support at six and twelve months post-qualifying. These sources of support were evident in each of the separate analyses suggesting convergence. However, the quantitative analysis provided a comprehensive list of how many and who was in a social network participants utilised to manage their stressors, far greater than was articulated at Phase 4. The qualitative analysis provided a deeper understanding of the actions within ‘support’ that lead to the appraisal being labelled by participants as ‘supportive’ with specific reference to work-related issues. The merged analysis thus highlights a methodological strength in this research as much as overall social support results.

Thematically, participants at Phase 4 illustrated what ‘support in action’ meant to them. They had a range of positive experiences and feelings when they felt supported in the workplace. It was important to participants to be part of a ‘good’ team to get the support they wanted. When they were part of a ‘good’ team they felt valued and included. They regarded the team as professional in executing their roles, respectful and assisting of each other, and devoid of incivility. The ‘good’ team also recognised they were newly qualified and what that might entail and consequently, they allowed the participants to take their time to learn and develop.

The manager was seen as pivotal to their appraisal that they were in a ‘good’ team. Positively regarded managers were approachable, accessible and constructively guided and facilitated the participant’s learning. They were also inspirational leaders of their team, showing command of their team and recognised achievement by giving praise.

The quantitative results showed that with increased participant age there was decreased availability of all possible types of social support at the point of qualification, but the association was not evident at six or twelve months post-qualifying. Furthermore, their functional social support was not associated with the total frequency of stressors they reported. These results appeared somewhat divergent from the qualitative results pertaining to the availability and purpose of support in the immediate job location as being part of a ‘good’ team with an inspirational manager seemed an essential component in the perceived frequency of stressors. However, the qualitative results represented the individual experience rather than the quantitative results, which represented the cohort experience.

The purpose of preceptorship was not fully understood by Phase 4 participants and this was compounded by a variable experience of preceptorship, even within the same organisation. Reporting of preceptorship was not available within the quantitative package of questionnaires, thus these results hailed entirely from the qualitative analysis.

6.11 Hardiness (quantitative)

Hardiness was determined from the Dispositional Resilience Scale (DRS15-R), despite the name suggesting it is a measure of resilience. The scale consists of three subscales: ‘commitment’ hardiness, ‘control’ hardiness and ‘challenge’ hardiness (Bartone, 1999). Using a Likert scale from ‘0= not at all true’ through to ‘3= completely true’, an overall value for each subscale is calculated by summing each subscale’s constituent five questions, taking into account some reverse scoring. A total hardiness score is calculated by summing the scores for each of the subscales. The distribution of the calculated values for total hardiness and the three subscales was checked for each phase and found to be normally distributed. Consequently, parametric tests were utilised in the analyses.

Overall, participants showed relatively moderate hardiness with ‘challenge’ hardiness less evident compared to ‘commitment’ hardiness and ‘control’ hardiness (Table 6.9). To assess whether total hardiness and the three constituent parts of hardiness significantly changed between time points a ‘one-way repeated measures ANOVA’ was undertaken (Pallant, 2013). A ‘one way repeated measures ANOVA’ required data from participants that had completed all three phases of data collection and had no missing data (Son, Friedmann and Thomas, 2012).

The outcome was that only reported total hardiness and ‘control’ hardiness significantly changed between time points over twelve months, but the other two components of hardiness did not significantly change. Total hardiness significantly decreased from the point of qualification to six months post-qualifying [Phase 1 to Phase 2: $F_{2, 56} = 6.23$, $p = 0.05$] and from the point of qualification to twelve months post-qualifying [Phase 1 to Phase 3: $F_{2, 56} = 6.23$, $p < 0.01$]. Within this, the same pattern of significant decline in ‘control’ hardiness was evident: the point of qualification to six months post-qualifying [Phase 1 to Phase 2: $F_{2, 62} = 7.65$, $p < 0.01$] and from the point of qualification to twelve months post-qualifying [Phase 1 to Phase 3: $F_{2, 62} = 7.65$, $p = 0.01$].

Table 6.9 Dispositional Resilience Scale (DRS15-R) (hardiness) mean scores at Phases 1-3

DRS15-R (hardiness) subscales and total	Score range	Phase 1		Phase 2		Phase 3	
		Mean (SD)	n	Mean (SD)	n	Mean (SD)	n
‘Commitment’ hardiness	0-15	10.70 (2.27)	273	10.93 (2.71)	104	10.20 (2.72)	85
‘Control’ hardiness	0-15	11.98 (1.96)	284	11.13 (2.69)	103	11.18 (2.13)	85
‘Challenge’ hardiness	0-15	8.94 (2.82)	276	8.98 (2.71)	105	8.52 (2.50)	83
Total hardiness	0-45	32.05 (4.99)	263	31.12 (6.05)	100	29.74 (5.48)	82

Non-responders at Phase 2 and/or Phase 3 and those with incomplete datasets were examined to determine if they were significantly different at Phase 1 from those that did participate throughout and had a full dataset. The outcome of the comparison analysis showed that the participants that had the required data to be included in the ‘one way repeated measures ANOVA’ were not significantly different to all the other participants at Phase 1.

6.11.1 Participant demographics and hardiness

The relationship between hardiness and the age of the participants, the nursing qualification they obtained and the relevance of healthcare experience prior to commencing their nurse education were all statistically analysed. At Phase 1, there was a significant positive correlation ($p= 0.05$) between age and reported total hardiness for $n= 235$ participants where complete data were available for both variables. This suggested that increased age was associated with increased hardiness. The ‘Pearson product-moment correlation coefficient’ was $r= 0.13$, hence, the strength of the relationship was weak as the effect size was small (Cohen, 1988). At Phase 2 and Phase 3 there was no significant correlation between age and total hardiness.

As hardiness consisted of ‘commitment’, ‘control’ and ‘challenge’ subscales, each of these was analysed at each phase using the ‘Pearson product-moment correlation

coefficient'. There was a significant positive correlation for 'commitment' hardiness [$r = 0.19, p < 0.01$] for $n = 242$ participants at Phase 1, but no correlation evident at Phase 2 or Phase 3. Similarly, there was a significant positive correlation for 'control' hardiness [$r = 0.12, p = 0.05$] for $n = 253$ participants at Phase 1, but no correlation seen at Phase 2 or Phase 3. There was no correlation at any phase for 'challenge' hardiness.

An 'independent samples t-test' was used to determine if there was a significant difference between the participants that entered nursing with a Diploma qualification and those that entered with a BSc qualification, in terms of their hardiness. At Phase 1, the mean (SD) total hardiness was 32.75 (4.82) for participants entering nursing with a Diploma qualification ($n = 135$), and 31.31 (5.08) for participants entering nursing with a BSc qualification ($n = 128$). The difference between the two groups was significant. Participants entering nursing with a Diploma qualification reported more total hardiness [$t = 2.35, df = 261, p = 0.02, 95\% CI (0.23, 2.64)$]. There was no significant difference ($p > 0.05$) between the groups at either Phase 2 or Phase 3.

At Phase 1, the mean (SD) 'commitment' hardiness was 11.31 (1.20) for participants entering nursing with a Diploma qualification ($n = 140$), and 10.67 (2.49) for participants entering nursing with a BSc qualification ($n = 133$). The difference between the two groups was significant. Participants entering nursing with a Diploma qualification reported more 'commitment' hardiness [$t = 2.33, df = 253.15, p = 0.02, 95\% CI (0.10, 1.18)$]. There were no other significant differences at Phase 1, or for each of the three subscales of hardiness at Phases 2 and 3.

At Phase 1, the mean (SD) total hardiness was 32.85 (4.22) for participants with healthcare experience from employment prior to commencing their nurse education ($n = 101$), and 31.59 (5.09) for participants without experience ($n = 154$). There was a significant difference in hardiness with those who had prior experience reporting greater total hardiness [$t = -2.01, df = 253, p = 0.04, 95\% CI (-2.50, -0.02)$]. There was no significant difference between the two groups at Phases 2 or 3. Furthermore, at Phase 1, analysing the hardiness subscales only 'control' hardiness showed a significant difference in favour of those with prior experience [$t = -2.27, df = 274,$

$p = 0.02$, 95% CI (-1.00, -0.07)]. There was no significant difference shown for any of the subscales at either Phase 2 or Phase 3.

6.11.2 Hardiness and the total frequency of stressors

At Phase 1, there was a significant negative correlation ($p = 0.03$) between the reported total frequency of stressors and total hardiness for $n = 197$ participants, where complete data were available for both variables. The ‘Pearson product-moment correlation coefficient’ was $r = -0.15$. This suggested that increased hardiness was associated with a decrease in the reported total frequency of stressors. However, the strength of the relationship was weak as the effect size was small (Cohen, 1988). At Phase 2 and Phase 3, the correlation was not significant. Analysis of ‘commitment’, ‘control’ and ‘challenge’ hardiness at each phase showed there were no significant correlations with the reported total frequency of stressors.

6.12 Resilience (quantitative)

Resilience was determined from the Connor-Davidson Resilience Scale (CD-RISC). Using a Likert scale of ‘0 = not true at all’ to ‘4 = true nearly all the time’, resilience is calculated by summing the response to each of the twenty-five questions giving a score out of one hundred (Connor and Davidson, 2003). The distribution of the calculated values for resilience was checked for each phase and found to be normally distributed. Consequently, parametric tests were utilised in the analyses.

Overall, the participants showed relatively high resilience (Table 6.10). To assess whether resilience significantly changed between time points a ‘one-way repeated measures ANOVA’ was undertaken (Pallant, 2013). A ‘one way repeated measures ANOVA’ required data from participants that had completed all three phases of data collection and had no missing data (Son, Friedmann and Thomas, 2012). The outcome was there was no significant difference in reported resilience at each time point over twelve months [$F_{2, 48} = 2.59$, $p > 0.05$].

Table 6.10 Connor-Davidson Resilience Scale mean scores at Phases 1-3

CD-RISC (resilience)	Scale score range	Phase 1		Phase 2		Phase 3	
		Mean (SD)	n	Mean (SD)	n	Mean (SD)	n
Total resilience	0-100	75.12 (13.15)	254	74.19 (14.09)	94	72.17 (15.07)	76

Non-responders at Phase 2 and/or Phase 3 and those with incomplete datasets were examined to determine if they were significantly different at Phase 1 from those that did participate throughout and have a full dataset. The outcome of the comparison analysis showed that participants that had the required data to be included in the ‘one way repeated measures ANOVA’ were not significantly different to all the other participants at Phase 1.

6.12.1 Participant demographics and resilience

The relationship between resilience and the age of the participants, the nursing qualification they obtained and the relevance of healthcare experience prior to commencing their nurse education were all statistically analysed. At Phase 1, there was a significant positive correlation ($p < 0.01$) between age and reported resilience for $n = 226$ participants where complete data were available for both variables. This suggested that increased age was associated with an increase in reported resilience. The ‘Pearson product-moment correlation coefficient’ was $r = 0.20$. However, the strength of the relationship was weak as the effect size was small (Cohen, 1988). At Phase 2 and Phase 3, there was no significant correlation between age and resilience.

An ‘independent samples t-test’ was used to determine if there was a significant difference between the participants that entered nursing with a Diploma qualification and those that entered with a BSc qualification, in terms of their reported resilience. There was no significant difference between the two groups for all three phases.

At Phase 1, the mean (SD) for resilience was 77.85 (13.86) for participants with healthcare experience from employment prior to commencing their nurse education ($n = 97$), and 73.39 (12.41) for participants without experience ($n = 153$). There was a

significant difference in resilience, with those who did have prior experience reporting greater resilience [$t = -2.65$, $df = 248$, $p < 0.01$, 95%CI (-7.78, -1.14)]. There was no significant difference between the two groups at Phase 2 or Phase 3.

6.12.2 Resilience and the total frequency of stressors

At Phase 1, there was a significant negative correlation ($p < 0.01$) between the reported total frequency of stressors and resilience for $n = 190$ participants where complete data were available for both variables. The ‘Pearson product-moment correlation coefficient’ was $r = -0.20$. This suggested that increased resilience was associated with a decrease in the reported total frequency of stressors. However, the strength of the relationship was weak as the effect size was small (Cohen, 1988). At Phase 2 and Phase 3, the correlation was not significant.

6.13 Hardiness and resilience (qualitative)

At Phase 4, participants were directly asked to comment on their own resilience and hardiness. The vast majority of participants found this difficult to answer. Participants would look confused by the question or provide an answer that was completely unrelated to either concept, for example:

“As a student I was often holding myself back, my cheekiness and my argumentativeness. Bossy, people don’t like to hear that from a student, but when you are a qualified nurse you are allowed to then have your idea, which is really nice.” A15

“I’m thinking, ‘right, I’m twenty-seven now, I’m growing up, I’m not seventeen’ and I’m thinking, ‘yes, you can have your jolly self’, but then you still need to have that attitude where, you know what, you’re a professional and you’re not working in the supermarkets or whatever. It is a professional job.” B89

Hardiness appeared to be misinterpreted because it contained the word ‘hard’. From this participants used words like “*hardened*”, “*argumentative*”, “*confrontational*”

and generally conveyed a negative and undesirable interpretation of hardiness. Resilience did not encounter a similar type of misinterpretation.

“I’ve not got to that point where I’m really hard with the patients and nasty to people, where I’m that tough now that I would scare myself.” A24

“I don’t know, I think I’ve definitely become a bit more, not hard...” C155

From the analysis process, there were two themes identified: ‘hardiness: I’ll just keep soaking it up’ and ‘resilience: I’ve risen above it’ (see Appendix 16).

6.13.1 Hardiness: I’ll just keep soaking it up

At Phase 4, no participant correctly identified their own hardiness characteristics. However, there were many examples of participants demonstrating an ability to influence their future (‘control’ hardiness) by actively addressing incivility from others, usually as a result of a previous experience where they had not done this and had been left feeling upset. Participant C129 demonstrated ‘control hardiness’ when they stated how they had to take charge of their own learning needs. They were not going to wait for someone else to offer them opportunities.

“I have learnt that I can’t just run away from certain things and you have to approach and tackle things head on.” A23

There were also examples of ‘commitment’ hardiness and ‘challenge’ hardiness, though, as with ‘control’ hardiness, not specifically identified as such by participants.

[Commitment hardiness] “I knew that experience wasn’t going to put me off nursing. I wasn’t going to leave. I’d invested too much into it and I knew I really liked it.” D283

[Commitment hardiness] “...when it’s relentless, I’ll just keep soaking up, soaking it up...” A24

[Challenge hardiness] “I think it's when I get in there you're excited, you're ready, for me I'm excited, I'm ready for the day. Throw whatever you want at me, I'll tackle it however I can.” B89

6.13.2 Resilience: I've risen above it

At Phase 4, only participant A24 correctly identified their own resilient characteristics, illustrating them with links to their work.

“I think I'm quite a resilient character anyway because even though I felt as bad as I did, I never went off sick. I was always at work on time, always did what was required of me. I never cut any corners, my documentation was always spot on.” A24

A few participants felt that their resilience had increased over their first twelve months post-qualifying. This was predominantly due to having come through a stressful situation, which was typically work-related. They had developed resilience by learning from adversity. No participant felt they had become less resilient over time.

“I feel in a way that I've actually come out laughing... I would like to go back and see her [manager] and say, ‘actually you know what, you're a horrible person. I don't like you. I don't agree with how you treated me, but I've risen above it. I'm better.’” C133

6.14 Merged analysis of hardiness and resilience results

Table 6.11 provides a summary of the significant quantitative results for hardiness and resilience. Furthermore, participants showed a moderate level of hardiness, which significantly decreased at six months and twelve months post-qualifying, as did ‘control’ hardiness. Conversely, participants were relatively high in resilience and there was no significant difference in their resilience between time points.

Table 6.11 Significant hardiness and resilience results at Phases 1-3

Variable	Phase	Total hardiness	'Commitment' hardiness	'Control' hardiness	'Challenge' hardiness	Resilience
Age	1	Positive association	Positive association	Positive association		Positive association
	2					
	3					
Nursing qualification	1	Higher in Diploma	Higher in Diploma			
	2					
	3					
Previous healthcare experience	1	Higher in 'with experience'		Higher in 'with experience'		
	2					
	3					
Total frequency of stressors	1	Negative association				Negative association
	2					
	3					

There was little convergence between these results and the qualitative analysis in no small part because participants struggled to comprehend hardiness and resilience. Potentially as a consequence, participants could not self-assess their own hardiness and resilience when directly asked. However, the qualitative analysis revealed links to the theory that informs hardiness, specifically its three constituent components of 'commitment', 'control' and 'challenge'. Likewise, there are theoretical links evident between resilience and the developmental benefit of having experienced adversity.

6.15 Chapter summary

This chapter has presented the quantitative, qualitative and merged data analyses related to newly qualified nurse stressors and potential stress-mediating factors: coping strategies, social support (structural and functional), hardiness and resilience. Other potential mediating factors that are personal features: age, healthcare

experience prior to commencing their nurse education and nursing qualification were also quantitatively explored.

The broad outcomes were that the participants faced multiple stressors most notably workload issues. They used a mixture of problem-focused and emotion-focused coping strategies when faced with work-related stress together with accessing a diverse range of people from their support network. Within the workplace 'support in action' from a 'good' team together with leadership from the manager were important factors. Participants had little articulable insight into their own hardiness and resilience, but both could vary in level when associated with reported stressors. Increased age and previous healthcare experience were important assets related to stress and coping. The final results chapter returns to 'support in action' presenting the results that consider the support needs for future newly qualified nurses.

Chapter 7 - Results: Looking to the future

7.0 Introduction

This final results chapter looks to the future in terms of the focus of the results presented. Building on ‘support in action’ presented in Section 6.9, this chapter presents the themes: ‘pre-registration nurse education, ‘commencing as a newly qualified nurse’ and ‘developing the newly qualified nurse’. Each of these incorporates good practice and some of the recommendations Phase 4 participants made for supporting and facilitating the transitional needs of future newly qualified nurses. From the analytical process the Phase 4 participants’ recommendations were extracted, categorised and are presented in Appendix 18. This chapter concludes with a mixed methods synthesis of all the key results from this chapter and the previous two results chapters.

7.1 Pre-registration nurse education

The vast majority of the participants at Phase 4 felt that there was nothing more their HEI could have done to help them in their subsequent transition experience and the stressors they encountered. Participants felt that as a nursing student they inevitably could not be taught everything, experience everything, be shown everything or do everything until qualified nurse status was achieved and actioned in their first job location.

“You know, no matter how much time you spend as a student until you are working, there are going to be some things. You can never get it all in.” B104

“...it’s like having a baby, nothing prepares you until you are actually doing it.” A24

However, despite this view that nothing more could have been done by the HEI, participants did recommend new teaching sessions that the HEI could offer pre-qualifying that might have helped them once they became qualified; for example, D283 recommended sessions on human behaviour psychology. Three quarters of the

participants supported the idea of the HEI providing a session towards the end of their nurse education led by newly qualified nurses. The newly qualified nurses should be approximately twelve months post-qualifying so that they could describe the reality, but also provide an outcome.

“...having a newly qualified in to talk to, because it is real.” D266

“Someone maybe that had been qualified a year or so. I think you need time to get over the rough stage, to settle and see things in perspective, so that you don't just give them this horror story. This is what happened, this is how it's dealt with and this is where I am now. So you're giving them a bit more hope.” D283

“...hearing it first hand from them [twelve months post-qualifying nurse] because most of the mentors obviously, they've been working for years and some of them couldn't really remember what their first years' experience was, so it would have been nice to have someone come in and say, 'this is what it's going to be like, this is what you will expect.'” B56

7.2 Commencing as a newly qualified nurse

7.2.1 Previous experience of the job location

Half of the Phase 4 participants had undertaken their final management placement of their nurse education in their first qualified nurse job location. The majority of the participants felt that this had benefitted them. The most-cited reason for the benefit was familiarity with the location and within that, familiarity with the team they were joining.

“...I didn't have to sort of learn new things and meet new people, all that kind of thing, so it was kind of like, yeah, I already knew the people, so I didn't have to settle in as much...” C155

“...they knew me and when I started it wasn’t like my first day, it was like a continuation... you know how people work etc. etc. and you know who are the people you can go to...” D266

The reason why familiarity was important was suggested by participant A15, who likened it to their experience as a nursing student. However, participant A24 experienced a disadvantage from familiarity. Their team lacked consideration that they had returned in a new role with new needs, quite different from when they had been there as a nursing student.

“I mean all students know that when you go your first day on a new ward, it’s horrible. You don’t know anybody. You don’t know where anything is. You are constantly asking everybody where everything is... so as a newly qualified nurse it is even worse.” A15

“...they [nursing team] knew me as a student and just couldn’t take me seriously? I don’t know. They just thought I’d get on with it.” A24

A few participants had commenced working in their job location as Band 4 Health Care Support Workers while waiting for their NMC registration. Participant A23 did not feel they benefitted because the role was too different to that of a qualified nurse. Participant B98 also acknowledged the difference in the roles, but felt they benefitted from the preliminary familiarity the work had given them.

“...it was better because obviously as a student in the community you’re not allowed to visit patients on your own, you’re with somebody all the time. ...doing a Band 4, you’ve got used to the area. You’ve got familiar with patients and you was working on your own, which you haven’t done for three years really, so it was, yeah, I think it’s good preparation.” B98

7.2.2 Starting the job with another newly qualified nurse

Some participants commenced their job location with other newly qualified nurses, mostly from their nurse education cohort, though they were not people they would have considered close friends. Many of the participants thought that this was good

and that they had benefitted (Table 7.1). This slightly contrasted with the result shown in Table 6.6, which showed participants seldom utilised former nursing student colleagues as part of their structural social support.

Table 7.1 Phase 4 participants that did/did not commence their first job with another newly qualified nurse and their opinion on their experience

Participant	Started with another newly qualified nurse	Opinion
A15	No*	Good*
A23	Yes	Good
A24	Job 1: Yes Job 2: Yes	Job 1: Good Job 2: Good
B56	No**	Good**
B89	Yes	Good
B98	No	n/a as no experience
B104	Yes	Good
C129	No	n/a as no experience
C133	Job 1: Yes Job 2: No	Job 1: Unhelpful
C138	Yes	Good
C155	No**	Unknown**
C185	No	n/a as no experience
D266	Yes	Good
D283	Job 1: No Job 2: No*** Job 3: No	Job 2: Good***
*There was a six months post-qualifying nurse on the ward **Started with other nurses, who were not newly qualified ***A newly qualified nurse started a few months later		

The reason participants felt they benefitted was because they formed a peer social network in the job location and consequently had access to people to talk to and gain support from. This resonated with the coping strategy sub-theme: ‘talk about everything to everybody’ (see Section 6.5.3).

“...while I was on the ward my patients would never see me upset, stressed, never, nothing ever, no one really, my friend [name] would because we trained together and we could have right good moans to each other. We were

on the same ward and that was good for me to have her there. ...it did help having someone that had been through everything with me...” A24

“...a lot of us were all newly qualified. We all sort of learnt together and I think that is how we got such a great team because we all learnt at exactly the same time, we all learnt at the same level...” A23

Despite being in the same job location participants noted how they were rarely on the same shift as their peer, which compromised them in practical and psychological terms.

“...there are four of us. ...we do work together occasionally. We all try to talk to each other... Unless you are working at the weekend you just feel like you are on your own. You don't see anyone else because you are up completely different ends. That's not always good for morale in a way because you just get depressed.” A23

A few participants that had not started with another newly qualified nurse indicated that they would have liked it if they had. The reasons they gave mirrored those given by the participants that had started with another newly qualified nurse with the addition that not working with a peer meant they had no ability to judge their own progress.

“...I'm really not sure how I'm doing because I've got no one new to compare myself to.” D283

When participant A15 started their job location there was a six months post-qualifying nurse there working. They found this beneficial because the more experienced newly qualified nurse represented their future and how they would potentially develop. They also formed a social network where the more experienced nurse was able to share their experiences and give advice. It therefore provided different, but equally important benefits to those participants that had started with newly qualified nurses, who were at exactly their stage.

“I remember saying to her [six months post-qualifying nurse], ‘how do you...?’ ‘Oh, you soon get used to it.’ And I was like, ‘oh, okay then.’ So

then I was thinking, 'well yeah, I'm not any less intelligent than her, so I am sure I would be able to do it.'" A15

7.2.3 Improvements to preceptorship

Based on their experience of their own preceptorship, a few participants made recommendations for how preceptorship could be improved in their organisation. A structured preceptorship programme should be designed by an organisation and then universally applied to all newly qualified nurses across the organisation. The programme should also include planned access to courses and training.

"A standard form for the whole Trust, not like I get nicer treatment and the other one has a horrible experience. A structure, 'this is what I expect'. Preceptorship is interpreted in different ways. A structured one, then you know what is expected from you." C129

7.3 Developing the newly qualified nurse

7.3.1 Scheduled, regular meetings with the manager

Participants identified they wanted scheduled, dedicated time with their manager in the form of a meeting every one to two months. The participants' general experience was that these types of meetings only occurred in relation to their annual appraisal, but participants felt it should be a separate meeting. Indeed, participant A23 described their appraisal at twelve months post-qualifying as a "stress-buster" because it was the only opportunity their manager had given them to express how they were feeling.

"The support is there, but the follow up and how people are doing, it's not there, basically. Unless you say, 'look, I'm not happy', then no one will actually come and say, 'okay, we need to sit down and talk', apart from when it's appraisal time and that's it." B89

[Regular meetings with the manager] "I do think that would have made a difference... if you've got a set time... at least you know that you've got, you

can discuss things that are on your mind and, 'look, I find this extremely difficult. I need some training with regards to this. I'm not finding this easy.' And just, like get some feedback as well because that obviously helps with your confidence and things as well. I think that would help immensely." C138

Part of the reason why participants wanted regular meetings with their manager was to secure regular feedback on their performance. Some participants felt they had not received this kind of feedback and as a consequence did not know if they were performing in the way the manager expected for a newly qualified nurse.

"... 'how do you think you're doing?' Nobody has really given me that feedback. ...if you've been good enough, or whether you need to try and do more?" D283

"My boss did speak once. She said to me, you know, after a few months, 'are you getting on okay? Do you like it?' You know, that kind of thing, out of the blue kind of and said, 'I think you are doing well.' I do respond well to that kind of thing." B104

7.3.2 Access to further education and development

As identified as a personal quality impacting on transition, 'desperately want to learn' (see Section 5.3.2), participants showed a strong desire to continue learning and developing. Participants wanted access to training and courses to facilitate this.

"I think the training courses are good. I definitely feel I get some morale boost... I did one as well, incontinence. They are very good. The training definitely makes you feel valued as a team member." B104

Participants wanted fair and equal access to training and courses within their nursing team and organisation. Access to training and courses illustrated to participants that at a job location level and at an organisational level they were valued and worth investing in.

[Referring to the same directorate located at two hospitals within one Trust]
“I even get told by other colleagues, ‘why don’t you start at [name of hospital] because over there you get to do these things.’ Whereas over here the manager... she’s always saying there’s no space, there is no money or this or that. There’s always an excuse and then there’s a lot of people on the waiting list. I said, ‘I don’t care about the other people on the waiting list, I want to do it.’” B89

“...that’s not really the ethos of that hospital and they were really upfront about it from the start. ‘We haven’t got money to send you on any training.’ And I said, ‘well what if I pay for it?’ ‘We haven’t got the time to let you off the ward.’ There was a complete, there seems to have been absolutely no interest in investing in you.” D283

7.3.3 Graduated increase in work/workload

Newly qualified nurses wanted time when commencing their first job to settle and adjust to their new role. This could be facilitated by gradually increasing responsibility and workload over the first few months.

“...she [manager] gave me time. She didn’t count me as a number to begin with and she didn’t ask me to do long days or nights. I was always working alongside one of the nurses. No, I wasn’t a number for about two months. I did nights, I think after six months.” C129

“The first week I had a ward of six, right, which was all right because you can deal with that. By the second week it was fifteen and it’s so quick to move up to such a lot.” A24

7.3.4 Newly qualified nurse forum

Only two participants had actually worked in an organisation where a newly qualified nurse forum existed. Both found attending the forum beneficial because it was a vehicle to regularly meet and share with other newly qualified nurses. This

broadened their knowledge of nursing and their organisation, as well as put their own experiences into some kind of perspective.

“...the purpose of it, it wasn’t to share experiences, it was to receive a lecture from someone. But that was an opportunity to share experiences and that’s how I knew that what was going on with me wasn’t normal. It wasn’t right.” D283

“I did find them encouraging... it lets you know what’s going on in other wards. You’re not isolated with your own peers and troubles.” B104

As with the participants that had actually attended a forum, the participants that would have liked a forum for newly qualified nurses saw this as a place for them to share experiences and problems, as well as gain advice and learn from peers. This resonated with the popular coping strategy, ‘talk about everything to everybody’ (see Section 6.5.3). It could also be a safe place to “*let out some steam*” as phrased by B89.

“...to be able to sort of say to friends, ‘oh, how did you find this? Have you been able to do this course yet? Who did you speak to?’ Even if you’re not working within that hospital setting, or the same area, to be able to sort of say, ‘I’m having a bit of an issue with this, have you got any advice or what did you do?’” C133

Overall, participants felt that a dedicated forum would combat their sense of isolation from other newly qualified nurses, a personal barrier during transition (see Section 5.4.1). It would tap into participants’ desire to continue with their learning and development together with facilitating direct communication with more senior managers in their organisation.

“It would be good to at least know that you’re not on your own.” B89

“I think the ongoing teaching is a good idea, formal teaching. So the formal carrying on I think is a good idea because you do still have more to learn.” D283

“I think it would be beneficial for the Trust to be there... you’ve got someone to guide you. It might not make any changes, but you’ll feel that bit better because you’ve aired your concerns and what’s bothering you, and obviously someone’s listened and that just lifts you a little bit...” C138

7.4 Mixed methods results synthesis

Chapters 5-7 have presented the results of this unique mixed methods cohort study initially involving 288 newly qualified nurses evidencing the complex and stressful nature of the transition they experienced, but at the same time identifying factors that mediated their stress over their first twelve months post-qualifying. The participants’ work-related experiences were illustrated through aspects of their transition, which was an unsettling period of time that lasted six to twelve months. Their transition highlighted some of their personal qualities: high ideals about professionalism and patient care and their immediate commitment to learning and developing. It also highlighted some personal barriers during transition: fragile confidence and feelings of isolation.

Participants showed a broad range of occasionally occurring stressors. Their total frequency of stressors did not change significantly between each time point over their first twelve months post-qualifying. However, two sources of stress did change significantly. ‘Death and dying’ significantly diminished between the point of qualification and six months post-qualifying and then rose significantly again at twelve months post-qualifying. ‘Workload’ significantly increased between six and twelve months post-qualifying. No participant mentioned ‘death and dying’ as a stressor in the Phase 4 interviews, but work and workload was repeatedly discussed providing a range of issues that explained why for them this was a stressor such as shifts being inadequately staffed and managing multiple role demands.

Thematically, the participants’ work-related stressors were categorised into factors that related to them as a person and to their job.

The most-used coping strategies were predominantly adaptive as they were problem-focused, positive reappraisal and social support. The coping strategy that

participants were most aware of using was talking to others. The least-used were some of the potentially maladaptive coping strategies: behavioural disengagement, denial and substance use. The coping strategies they used did not significantly change between time points. However, there was a significant increase in the use of the potentially maladaptive coping strategies with increased reported stressors at the point of qualification and at six months post-qualifying. Through merged analysis, quantitatively determined coping strategies were congruent with qualitative themes, but the latter analysis provided illustrations of how these strategies were practically mobilised in relation to work-related stressors.

Participants on average utilised four to five members of their social network to assist them with work stressors. They had a high and diverse level of functional social support that did not change between time points and was not associated with their total frequency of stressors. However, participants illustrated 'support in action' in the workplace and the pivotal role of the manager in facilitating a positive experience and their variable experience of preceptorship. They also made recommendations for how future newly qualified nurses could be supported, which generally focused on what the job location and wider organisation could do post-qualifying to facilitate a less stressful transition.

Analysis of the participants' hardiness and resilience showed that they were moderately hardy and relatively high in resilience. Resilience showed no significant change between time points, but total hardiness and 'control' hardiness did with both decreasing at each phase over twelve months. Increased total hardiness and resilience were both associated with a decrease in the total frequency of reported stressors at the point of qualification only. Phase 4 participants struggled to articulate how hardy and resilient they were with little apparent comprehension of either, but there was some evidence of the theories associated with hardiness and resilience within the qualitative themes and supporting dialogue.

The increased age of the participant was significantly associated with a decrease in their reported total frequency of stressors at the point of qualification. Also at the same time point, increased age was associated with the increased use of problem-focused coping strategies and less use of maladaptive coping strategies, less available

social support, and increased total hardiness, ‘commitment’ hardiness, ‘control’ hardiness and resilience. Only at twelve months post-qualifying was increased age positively associated again with the increased use of some problem-focused coping strategies.

There were very few significant differences between participants that entered nursing with a BSc qualification and those that entered with a Diploma qualification. Participants that entered nursing with a BSc qualification reported a greater total frequency of stressors at the point of qualification, but the difference did not persist beyond this time point. Participants that entered nursing with a Diploma qualification had greater total hardiness and ‘commitment’ hardiness at the point of qualification only. There was no significant difference associated with resilience over twelve months post-qualifying.

Participants who commenced their nurse education with previous healthcare experience were found to be significantly different to those without previous experience in many test variables. They reported significantly less frequently occurring stressors at the point of qualification and at twelve months post-qualifying. These participants also reported less stress from ‘workload’ at twelve months post-qualifying. Participants with previous healthcare experience reported greater use of ‘positive reinterpretation and growth’ and ‘planning’ to cope with work-related stressors at the point of qualification. While there were no other significant differences for this group at six months and twelve months post-qualifying, those without previous healthcare experience used more potentially maladaptive coping strategies at the point of qualification and at six months post-qualifying. Those with previous healthcare experience were also found to have more total hardiness, ‘control’ hardiness and resilience at the point of qualification only.

Further synthesis of the major results that have been presented throughout Chapters 5-7 is provided in Figure 7.1 (see page 232) and Figure 7.2 (see page 233). Figure 7.1 diagrammatically shows that transition, as professionalisation and socialisation, along with job and personal stressors are fluctuating, entwined experiences for newly qualified nurse involving rollercoaster confidence as they passage towards adaptation to their new status, role and work environment.

Figure 7.1 also shows the significant direction of mediation of coping strategies and personal features associated with a high or low total frequency of stress reported at the point of qualification, six months and twelve months post-qualifying.

Figure 7.2 is an integrated model that synthesises the results in relation to the theories that informed this research that were presented in Chapter 2 and Figure 2.1. At the centre of the model is the newly qualified nurse's personal transition experience. The experience will be unique to each nurse, but mediated, either positively or negatively, by personal features, qualities and barriers as well as by 'support in action'. The individual experience is further affected by their cognitive appraisal of stress and coping, socialisation and professionalisation. The outcome for newly qualified nurses of this highly complex, multifaceted personal transition experience is adaptation to the workplace which, if the adaptation is successful incorporates confidence and competence as a qualified nurse.

7.5 Chapter summary

This chapter has illustrated some of the pragmatic practical consequences of this research by presenting the Phase 4 results that showed support in action for future newly qualified nurses: pre-registration nurse education, when first commencing qualified nursing work and supporting the developmental needs of newly qualified nurses. Thereafter in this chapter all the main outcomes from Chapters 5-7 were brought together as an overall mixed methods results synthesis culminating in a diagrammatic depiction of stressful transition and mediating factors over twelve months post-qualifying and an integrated model of newly qualified nurse transition. The results synthesis directly addresses the research aims and questions posed at the outset of this research (see Section 3.8). The next chapter will discuss these outcomes in relation to available literature as well as the general and theoretical background that informed this research.

Figure 7.1 Diagram of research results: newly qualified nurse transition, stress and mediating factors over twelve months from the point of qualification

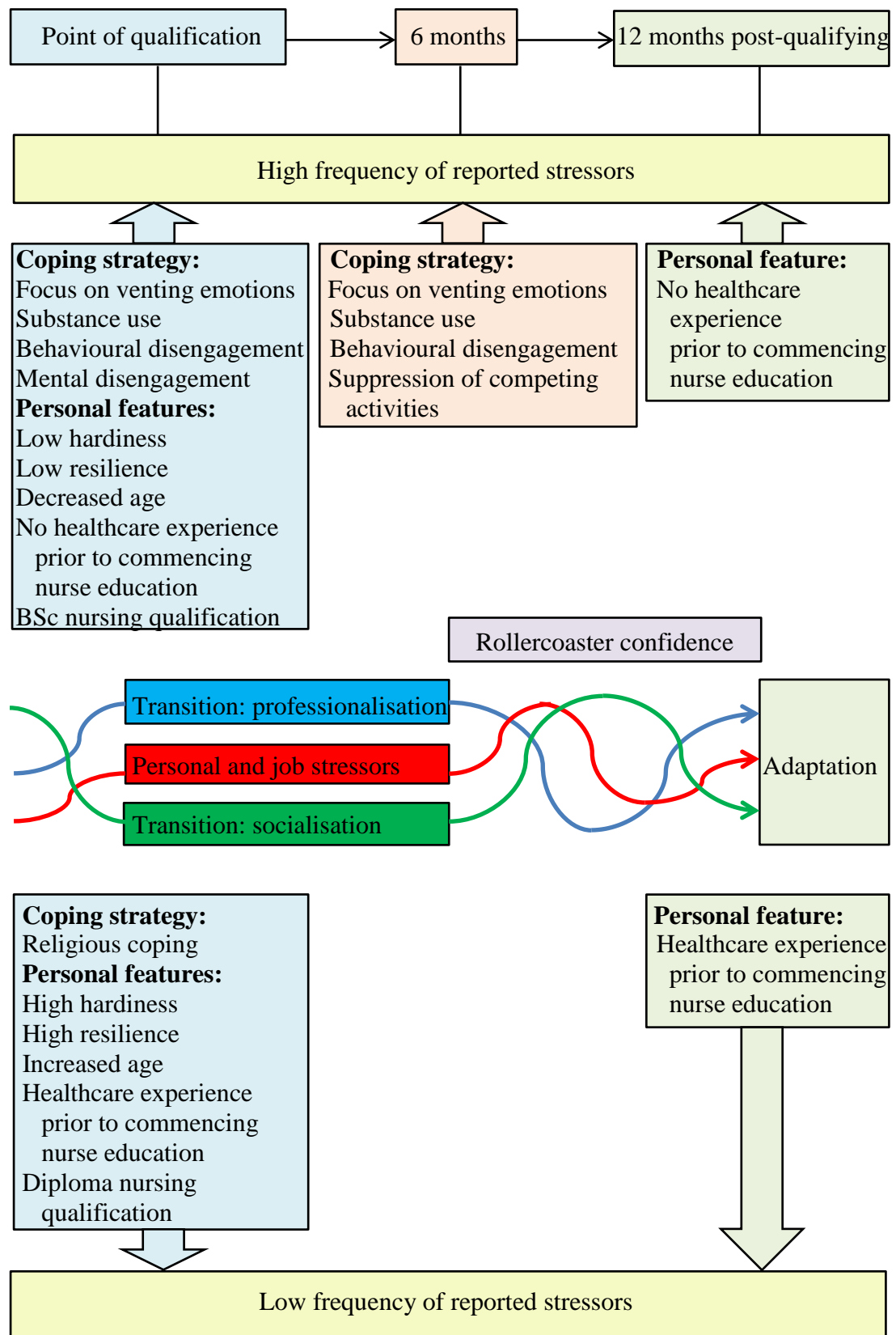
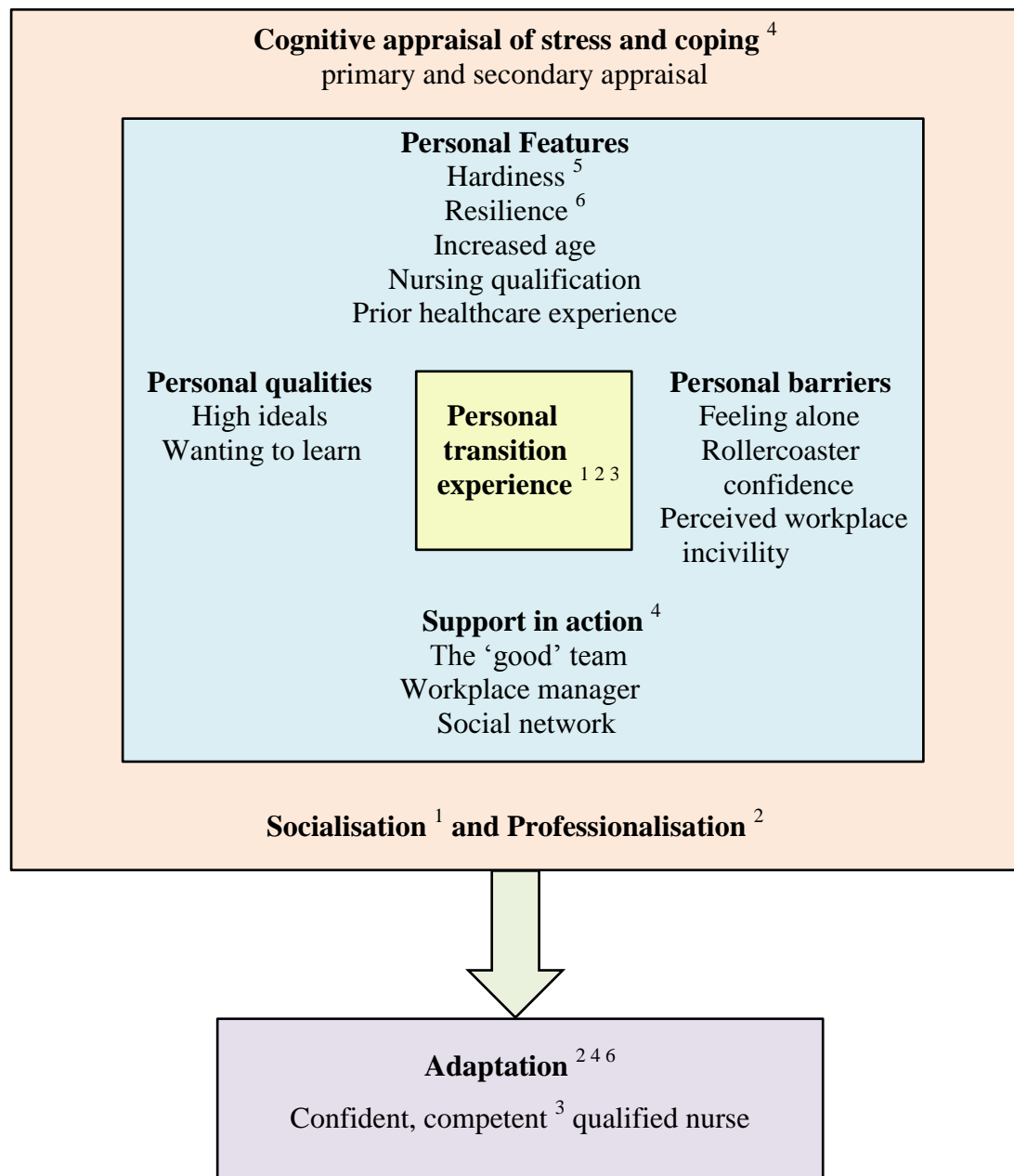


Figure 7.2 Integrated model of newly qualified nurse transition



Theory:

1= Kramer (1974): 'reality shock', socialisation

2= Duchscher (2009): 'transition shock', professional role adaptation

3= Benner (1984): nursing competence development

4= Lazarus and Folkman (1984): cognitive appraisal of stress and coping including social support as a coping resource

5= Kobasa (1979): 'control', 'commitment' and 'challenge' hardiness

6= Richardson *et al.* (1990): 'resiliency model', adversity/adaptation

Chapter 8 - Discussion

8.0 Introduction

Based on the review of the literature, this mixed methods study is the first to investigate the transition of newly qualified nurses over their first twelve months post-qualifying through exploring their stressors and stress experiences coupled with their coping strategies, social support, hardiness and resilience. The previous three chapters presented the results for each of these strands of the research together with results that looked to ‘support in action for the future’. It culminated in a mixed methods synthesis of the results illustrated diagrammatically and as an integrated model.

In keeping with the pragmatic epistemology of this research, the major results are critically analysed and discussed in this chapter and represent the “*practical consequences*” of knowing (James, 1997a/1907, p. 94). This chapter commences with a discussion of the aspects that were identified in the reported experience of transition for the participants at Phase 4. Thereafter, the stressors identified during transition are discussed, followed by each of the potentially mediating concepts that were investigated (coping strategies, social support, hardiness and resilience). These are all considered in relation to the theories that informed this research. Thereafter, ‘support in action for the future’ is discussed as the strength of this study lays not only in the new understanding of newly qualified nurses that has been gained, but the recommendations that can be made for supporting future newly qualified nurses that directly come from the participants’ experiences and recommendations.

8.1 Aspects of transition experienced by newly qualified nurses

Thematic analysis of the data identified aspects of the transition experience reported by Phase 4 participants at approximately twelve months post-qualifying. Transition appeared to be a turbulent passage of developing professionalism, socialisation and adaptation to the workplace producing a myriad of experiences, emotions and personal development, before emerging as a confident and capable qualified nurse. The aspects of transition identified were sub-themed into their ‘personal transition

experience’, their ‘personal qualities impacting on transition’ and their ‘personal barriers during transition’. These aspects are examined in this section in relation to the theories and stages of transition as well as the national and international research that had previously investigated transition in newly qualified nurses.

8.1.1 The personal transition experience

8.1.1.1 Professionalisation: reshaping professional identity

Some of the participants articulated how, on commencing their first job as a qualified nurse, they felt no different to when they had been a senior nursing student, a view Clark and Holmes (2007) found UK ward managers also held. Yet participants felt that how they were perceived by those they now worked with had instantly changed. Their new uniform symbolised a change in others’ expectations of them: in their role, the degree of responsibility now expected of them and their perceived abilities. Part of the process of transition is the re-shaping of self-image (Kralik, Visentin and van Loon, 2006), but when applied to nursing it is re-shaping a new professional identity (Deppoliti, 2008). It has been proposed that this is a process that spans the initial months of practice in both the ‘doing’ and ‘being’ stages of transition (Duchscher, 2008).

An aspect of transition was the participants’ self-belief that they were a hindrance to their team. There were a number of factors identified within this self-belief. The participants seemed to compare themselves to long-serving nurses perceiving that they were slower, they may miss nuances in patient care that long-serving nurses would pick up on and translated this and internalised it as they were less able and a hindrance. Further evidence of self-criticism came from the way they described their questions to colleagues. They frequently described their questions as “*silly*” or “*stupid*”. Newly qualified nurses learn by asking questions as it is a way of generating knowledge and affirming already held knowledge (Deppoliti, 2008; Bisholt, 2012b). It is also a way for them to know that they are working safely (Riegel, 2013). Shying away from asking questions and seeking assistance has been identified in Canadian newly qualified nurses as a strategy for not appearing like a burden to the team (Duchscher, 2009; Romyn *et al.*, 2009) and in Australian newly

qualified nurses as not wanting to appear “*stupid*” in front of the team (Malouf and West, 2011). Redefining self-image is part of transition, so to regard the questions that need to be asked in such self-critical language and not asking questions when they need to be asked might constitute a self-imposed threat to successful transition, as well as potentially compromising being able to practice safely.

8.1.1.2 Socialisation: power and position in the hierarchy

Maben, Latter and Macleod Clark (2006) argued that role models in the workplace were agents of socialisation for newly qualified nurses. Newly qualified nurses were socialised into knowing how they should behave as a qualified nurse, but failure to behave in the expected way risked alienation for the newly qualified nurse (Bisholt, 2012a). The results of the current study illustrated how there were agents of socialisation for some newly qualified nurses that were positive, empowering role models such as when participants positively described their manager (see Section 6.9.2). A better description could be that the role models were agents of professional socialisation by virtue of the high regard participants gave to the professionalism of these role models as well as facilitating their socialisation into the workplace.

The theme ‘affecting the team’ (see Section 5.2.2) encompassed issues raised by the participants such as they felt no-one listened to them, the opinion of senior nurses carried more weight than theirs and that it was only possible to make a difference within a team from a senior position. These can be interpreted as additional examples of the ‘professional sabotages’ Maben, Latter and Macleod Clark (2006) identified. Furthermore, within the stressor ‘incivility: it’s not the job, it’s the people you work with’ (see Section 6.2.2.1) some participants made reference to the “*power struggles*” they experienced with HCAs. These results are suggestive of how newly qualified nurses perceive the formal power they have in their workplace and their perception of where they are situated within a workplace hierarchy.

Newly qualified nurses can perceive that they have little access to formal power in their workplace (Smith, Andrusyszyn and Laschinger, 2010) as well as lacking control and power during transition (Duchscher, 2009). Bisholt (2012a), from a

study of Swedish newly qualified nurses, found that they were being socialised into knowing their place in the hierarchy and that it was at the bottom, by others emphasising that they were more superior in position. Therefore, hierarchy may lead to oppression of a particular group when one group becomes more dominant than others (Whitehead, 2010). Using the argument of Duchscher and Cowin (2004) that different generations of nurses have their own unique histories, work ethics and expectations, the current generation of newly qualified nurses may naturally expect that they should give their opinion and that they should be listened to. Therefore, part of a positive transition experience may be associated with being able to reach a position in the hierarchy where newly qualified nurses feel valued and listened to, which may foster an improved sense of power.

Riegel (2013) identified in American newly qualified nurses that they found it hard to find their position within the hierarchy of the workplace. This may be because the newly qualified nurse's self-identity is changing. Newly qualified nurses feel like a nursing student, but are no longer one, and they are a qualified nurse, but do not feel like one. This mirrors the argument of Bisholt (2012a) that newly qualified nurses are actually positioned in a 'marginal situation' where they neither belong to the academic culture of the HEI nor the professional healthcare culture with its emphasis on practical skills. This argument bears similarity to the theory of 'reality shock' whereby the nursing student has been socialised into one subculture, but as a newly qualified nurse they enter a different subculture, with different values, attitudes and behaviours (Kramer, 1974). Furthermore, Duchscher (2009) argued that 'transition shock' was part of the newly qualified nurse's initial period of socialisation. A new process of socialisation to learn this new culture, particularly over the first six months post-qualifying is required (Kelly and Ahern, 2009).

8.1.1.3 Duration of transition

It was not the aim of this research to apply a time frame to the transition experiences of the participants. However, many of the participants made reference to how long it took them to feel relatively settled in their role, responsibilities and job location as well as when the most unsettled time was for them. This research reinforced the findings of previous international research (Casey *et al.* 2004; Romyn *et al.* 2009;

Andersson and Edberg, 2010) that the experience of transition lasted six to twelve months following qualification. The results of this research also reinforced the findings of previous international research that had used smaller samples than this research (Duchscher, 2001; Feng and Tsai, 2012) that the most unsettled time for newly qualified nurses was the initial few months following qualification and that this was the time when they needed the most support (Rush *et al.* 2014). Feeling unsettled was found to continue for some participants to at least six months post-qualifying, an outcome that also had support in the international literature (Duchscher, 2008; Goode *et al.* 2009). These results on the duration of transition and when the most unsettled time is situated comparatively with previous international literature. It also constitutes a new understanding when specifically considering contemporary newly qualified nurses.

At twelve months post-qualifying, the participants felt that their feelings and confidence had become more consistent. They were more comfortable with the gaps they had in their knowledge, which the Canadian study by Duchscher (2008) also found. Participants in the current research conveyed more rational thinking about the risk of litigation and losing their NMC registration. These feelings and behaviours may constitute tangible indicators that the process of transition is drawing to a conclusion. This development of feeling more settled in their role and their own developing abilities has parallels with the proposal that newly qualified nurses shift their focus from within themselves to becoming more outward-facing as they move through the stages of transition (Duchscher, 2001). It also parallels with Benner's theory that the newly qualified nurse is progressing from an 'advanced beginner' to a 'competent' nurse, as they are developing a sense of mastery and ability to cope with different situations (Benner, 1984) as indicated in Figure 7.2.

8.1.2 Personal qualities impacting on transition

8.1.2.1 Upholding high ideals

Nurse education in the UK is built upon instilling in its future nursing workforce high standards of knowledge, skill, behaviour, performance and professionalism (NMC, 2010b). It is therefore unsurprising that graduates of this system develop

high ideals about professionalism and standards of care. Newly qualified nurses holding high ideals and the effect on the person when these ideals become threatened or have to be abandoned have been associated with feelings of frustration and guilt as newly qualified nurses can regard themselves as contributing to substandard care practices (Duchscher, 2009). The situation has also been associated with feelings of disillusionment and moral distress (Kelly, 1998; Riegel, 2013).

Maben, Latter and Macleod Clark (2006) identified that UK nursing students qualified with three categories of ideals all of which centred about the standard of care they wanted to give. The importance attached to care thus appears central to evolving professional identity, but conflict has been shown to occur for UK newly qualified nurses between their compassionate care ideals and the reality of the workplace (Horsburgh and Ross, 2013). Feng and Tsai (2012) found a similar link to care in their study that investigated the socialisation of Taiwanese newly qualified nurses during their first six months in their first job. The newly qualified nurses experienced a clash between their professional values learnt in the HEI and the organisational values they were encountering.

Participants in the present research certainly held high ideals about the type of nurse they wanted to be and now were as qualified nurses, though they did not explicitly articulate what their ideals were to be able to determine if they were the same as those Maben, Latter and Macleod Clark (2006) had found in their UK study. Previous national and international research has found that newly qualified nurses can develop the view that the ideals taught in their nurse education were unrealistic in actual nursing practice (Maben, Latter and Macleod Clark, 2007; Duchscher, 2008; Thrysoe *et al.* 2011; Horsburgh and Ross, 2013). When ideals cannot be actioned in the 'real world' of nursing newly qualified nurses can be left disillusioned with their nurse education (Duchscher, 2001) or reject the ideals they were taught in order to take on the ideals of their job location (Kramer, 1974). There was no evidence in the current study to support this argument. Instead, there was evidence that participants were determined to keep their high ideals even in the presence of sabotaging behaviours such as incivility from colleagues.

How their ideals had developed could not be determined from the results of the qualitative analysis, but participants definitely knew what kind of nurse they wanted to be and demonstrated a determination to be that kind of nurse. This was certainly an encouraging result given the recommendations of the Mid Staffordshire public inquiry that those recruited to the nursing profession should have “*appropriate values, attitudes and behaviours*” and “*drive to maintain, develop and improve their own standards and abilities*” in order to deliver compassionate care (Parliament. House of Commons, 2013, p. 105). Participants did not demonstrate any kind of disillusionment with their HEI. The results showed that participants felt the HEI had prepared them to be the nurse they wanted to be. It was not possible to fully teach the ‘real world’ of nursing, a finding echoed by Maben and Macleod Clark (1998). Indeed as Maben, Latter and Macleod Clark (2007) stated, nurse education provides the aim, the ‘gold standard’ for what patient care should be for the newly qualified nurse to aspire to and this was borne out by the results of the current study.

Maben, Latter and Macleod Clark (2007) identified that there were three types of idealist seen in newly qualified nurses: ‘sustained idealist’, ‘compromised idealist’ and ‘crushed idealist’. Price (2009) found from a qualitative meta-synthesis of the early socialisation of nurses that newly qualified nurses identified some senior and experienced nurses as uncaring and hardened, which was something that was not part of the ideals they held about nursing. As discussed above, the determination participants appeared to maintain over their first twelve months to practice as the nurse they had wanted to be when they were nursing students suggests that they were ‘sustained idealists’. However, a new type of idealist may have been identified in this current research: the ‘disappointed idealist’; for example, participants could not explain why more long-serving nurses behaved in a way that implied they had forgotten what it was like to be newly qualified, or they were disappointed when a manager did not behave as a good role model. The ‘disappointed idealist’ was different from the description of a ‘compromised idealist’, who was frustrated typically by a lack of staff, resources and the prioritisation of task-orientated care and the ‘crushed idealist’, who no longer gave nursing care to the standard they had aspired to (Maben, Latter and Macleod Clark, 2007). The results showed that participants applied their ideals not only to themselves, but to the nurses they worked

alongside. The outcome was that they were frequently disappointed in what they saw and heard.

It has been suggested that the early stages of the socialisation of newly qualified nurses involve moving from the initially held assumptions and expectations of nursing to a new individual construction of what nursing is as a consequence of experiencing the realities of nursing practice. This reconstruction of reality enables newly qualified nurses to cope with the dissonance between their ideals and the reality they experienced (Price, 2009). This is essentially the early stages of 'reality shock' (Kramer, 1974) and 'transition shock' (Duchscher, 2001; Duchscher, 2008). It involves the dropping and modification of ideals. The results of this research challenge these assertions. Socialisation for Phase 4 participants appeared to mean withstanding the challenges to their ideals in order to keep them intact.

8.1.2.2 Continuing to learn and develop

A personal quality seen as part of transition evident in the participants was their strong desire to continue learning and developing. Contrary to the findings of Duchscher (2001) who found that the Canadian newly qualified nurses in the first stage of transition ('doing nursing') had no energy left for learning and only appeared to re-engage with learning at the second stage of transition ('the meaning of nursing'), the results of this research found that the participants immediately attended to their self-identified need to gain more knowledge and skills. It seemed that the participants in this research saw this as fundamental to their ideal of providing high quality nursing care, a result mirrored by Deppoliti (2008) and Feng and Tsai (2012) using American and Taiwanese newly qualified nurses respectively. Furthermore, this was a noteworthy and encouraging result in light of the recommendations of the Mid Staffordshire public inquiry (Parliament. House of Commons, 2013).

The current study showed that the participants reported using 'self-reflection for self-improvement' to identify their own gaps in knowledge and skills and used this insight to determine their own learning needs and generate their own new knowledge. This technique and purpose was similarly found by Duchscher (2001) at the second stage of transition referred to above. Linsley *et al.* (2008) argued that the

use of reflection and lifelong learning to modify practice was necessary to meet evolving professional expectations in an increasingly complex healthcare service. The current results suggest the participants, at least in the initial phase of their nursing career, had this practice ethos. Additionally, participants used self-reflection to analyse their own personality to learn more about themselves as nurses and how their personality enabled them to fit into the team in which they worked. Participants also commented that they used reflection to manage their feelings when they received feedback and criticism and find the new learning within the experience.

There was no evidence to suggest that the job location or the wider organisation facilitated reflection for participants. Indeed, there was very little evidence to suggest reflection was carried out in collaboration with their preceptor or a nurse they had been allocated to work with, as Dyess and Sherman (2009) also found from interviewing a sample of American newly qualified nurses. Reflection appeared to be a lone exercise for participants, but one that they utilised frequently to support their own learning and development. The frequent and apparently comfortable usage of reflection amongst the participants may have been because it is a key requirement in current UK nurse education and a skill that the NMC expects newly qualified nurses to continue using in their professional practice (NMC, 2010b). It is possible that the skill of reflection became honed during their nurse education and transcended into qualified practice despite the apparent lack of facilitation of its use in the workplace.

In addition to reflection, participants provided insight into the strategies they utilised to develop their qualified practice. Participants conveyed how they learnt by formulating their own strategy to manage a situation and then testing it out in practice. Previous research from Taiwan found that newly qualified nurses would identify a professional issue and then manage their own learning to address it (Feng and Tsai, 2012). Sometimes participants in the present research would deliberately put themselves in a situation so that they could devise a method of managing it, a strategy Duchscher (2008) identified in Canadian newly qualified nurses. Bisholt (2012b) had a similar finding in analysing how Swedish newly qualified nurses' learnt. In that research, newly qualified nurses learnt to manage and organise their work by self-developed tools to help themselves, but it took a lot of time and

energy trying to find their own work systems. It is possible that in the present research, participants on occasion used this approach to learning if they lacked direct support or a guiding preceptor and so they had to resort to self-directed learning. However, it is also possible that, like with reflection, it was a skill that had been developed in their nurse education and transcended into their qualified practice.

Participants also spoke of adopting the strategies that they were offered by their nurse colleagues including their manager. The mechanism for this seemed to be that a more experienced nurse would notice a situation developing for the newly qualified nurse such as their inability to complete their paperwork during their scheduled working hours and then offer them a strategy for how they could better manage the situation. The participants seemed very receptive to the advice and guidance, but would not always initiate seeking the advice from others. Benner (1984) linked this attribute to the 'advanced beginner' level of competency. Newly qualified nurses need relationships with more experienced nurses because they have not, at this fledgling stage, developed the ability to see the bigger picture, to manipulate their knowledge and skills, or problem-solve in a multi-skilled way (Benner, 1984).

As has been demonstrated above, learning and development in some participants incorporated factors such as increasing their knowledge, observing and asking how others manage situations, and formulating and testing their own strategies. These three elements can be seen as an example of the 'passage points to professional identity' described by Deppoliti (2008). In that research, newly qualified nurses learnt to manage their encounters with doctors by increasing their knowledge, watching how more experienced nurses interacted with doctors and develop their own ways of managing their interactions with doctors. The results of this present research in conjunction with previous research is suggestive that it is the observing, asking, reflecting, self-formulating and testing that actually expand upon what 'experience' means in real terms to the newly qualified nurse. The newly qualified nurse is building up a repertoire from which they can draw, which they did not so extensively have when they entered the workplace immediately post-qualifying.

8.1.3 Personal barriers during transition

Duchscher (2009) reported that newly qualified nurses displayed extreme exhaustion from the “*emotional rollercoaster*” they felt they were on over their first three to four months post-qualifying. In this current research, it was confidence levels that a participant specifically described as like being on a “*rollercoaster*”, though Duchscher (2001) also stated how confidence in particular was up and down in the initial months of the transition experience. Previous research from the UK (Maben and Macleod Clark, 1998) and the United States of America (Dyess and Sherman, 2009) has identified confidence as an important issue for newly qualified nurses.

Poor confidence has been attributed to newly qualified nurses (Kramer, 1974; Kelly, 1998; Smith, Andrusyszyn and Laschinger, 2010). The causes of poor confidence in newly qualified nurses have been identified in the literature, such as inadequate clinical knowledge from an American sample (Casey *et al.* 2004) and skills and knowledge from a UK sample (Clark and Holmes, 2007). However, in these examples there was no empirical evidence to support the position that the newly qualified nurse had made the link between a personal cause and their poor confidence. Unlike much of the existing literature, in this research the personal causes of poor confidence were identified by the Phase 4 participants. They were a lack of ability, gaps in their knowledge and experience along with comparing themselves to the perceived abilities of others. Unlike Kelly (1998) who sampled American newly qualified nurses, participants in this research did not report a lack of skills caused them to have a lack of confidence. These factors imply internal reasons for a lack of confidence. External sabotaging reasons were implied from comments made to participants such as being told “*you should know that*”. Communication that could reasonably be described as uncivil has previously been identified as a cause of poor confidence in international newly qualified nurses (McKenna *et al.* 2003; Dyess and Sherman, 2009).

A lack of confidence, therefore, could be regarded as a threat to successful transition. However, when participants in the current study were able to identify in themselves that their knowledge, skills and competence had improved, they specified this improved their confidence. Participants seemed to measure improvements in their

confidence by their ability to do something that they previously could not. Similarly, receiving praise and being set goals and targets were additional mechanisms by which participants measured their confidence. Clark and Holmes (2007) made the argument, based on their UK study of newly qualified nurses, that it does not build confidence to set newly qualified nurses learning contracts or additional assessments before allowing them to work independently. However, the evidence from the current study suggests the contrary. The participants spoke of wanting tangible evidence of their development and progress because they lacked the ability to objectively assess it themselves. The results suggest that confidence was fragile and volatile during transition, but by making improvements measureable and thus demonstrable to newly qualified nurses, confidence develops and can become a positive aspect of transition.

8.2 Stress and newly qualified nurses

Many of the aspects of transition for the newly qualified nurses in this research had the potential to facilitate or threaten a positive transition experience. Many of the stressors and stress experiences reported by the participants shared the same potential to affect transition. The results of the current study revealed that participants experienced a broad range of occasionally occurring stressors. This was a similar finding to other international studies that had used the Nursing Stress Scale (NSS) with newly qualified nurses that had been qualified six months or less (Brunero, Cowan and Fairbrother, 2008; Suresh, Mathews and Coyne, 2013).

The unique longitudinal design of the current research facilitated determination of whether the frequency of stressors changed over the participants' first twelve months post-qualifying. The results showed that the total frequency of stressors did not significantly change at each time point over twelve months. This represents new knowledge, as there are no previous studies that have attempted to investigate this. The result suggests that the total frequency of stressors experienced by newly qualified nurses was relatively static. However, more detailed quantitative analysis coupled with thematic analysis of the qualitative data suggested there was change in

at least some of the individual sources of stress experienced over the first twelve months post-qualifying.

Thematically from the Phase 4 qualitative data, the stressors experienced by participants were related to themselves and their job. In terms of the factors that related to the person, participants had a range of feelings and fears associated with being ‘thrown in’ to nursing work without help and support. This was a phrase that previous research from the UK (Maben and Macleod Clark, 1998; Ross and Clifford, 2002), Australia (Kelly and Ahern, 2009) and Denmark (Thrysoe *et al.* 2011) had also identified. In the current study, participants feared making an error that harmed patients (Kelly, 1998; Maben and Macleod Clark, 1998; Romyn *et al.* 2009) and feared not knowing the answers to questions (Kelly, 1998). This led participants to feel under pressure, often self-imposed pressure, to learn quickly. This was also framed by their drive to maintain their high ideals, their standards of professionalism and patient care but, for some, they had to battle opposition from their team, enduring stress from pressure to follow the prevailing culture and norms of their job location. This outcome mirrored the results of previous national and international research (Kelly, 1998; Duchscher, 2001; Maben, Latter and Macleod Clark, 2006; Kelly and Ahern, 2009; Feng and Tsai, 2012). This collection of stressors that related to the person resonated strongly with aspects of transition that were identified within this current research. It provides, also, evidence for the stressful nature of transition and that some of the stressors are self-imposed, while others originate from the environment in which the newly qualified nurse works.

The major findings from the merged analysis were stressors experienced by the participants related to their job: ‘death and dying’, ‘workload’ and incivility in the workplace. Additionally, the quantitative results provided a novel result in that participants that had healthcare experience from employment prior to starting their nurse education and the increased age of participants had less frequently occurring stressors at certain time points over twelve months. These results are examined in the concluding parts of this section.

8.2.1 Dealing with death and dying

The quantitative results of this research showed that ‘death and dying’ was a highly ranked, occasionally occurring stressor at the point of qualification. Its frequency significantly diminished to a much lower ranked stressor at six months post-qualifying, before significantly increasing again in frequency to a highly ranked stressor at twelve months post-qualifying. This quantitative result was at odds with the Phase 4 data where no participant mentioned it as a source of stress in their interview.

The existing literature showed that ‘death and dying’ as a source of stress was present for nursing students (Por, 2005; Pulido-Martos, Augusto-Landa and Lopez-Zafra, 2012). It has also been reported as a source of stress at three months post-qualifying (Yeh and Yu, 2009), though the Taiwanese newly qualified nurses in this study were twenty to twenty-four years old, so youth might have been a factor. It has been reported as a source of stress for newly qualified nurses at six to seven months post-qualifying (O’Shea and Kelly, 2007) and has been identified as a stressor for qualified nurses (McVicar, 2003; Laranjeira, 2012). Therefore, from the literature, dealing with death and dying patients is a consistent stressor that spans pre and post-qualification. However, the results of the present research prompts three questions: why did ‘death and dying’ significantly decrease at six months post-qualifying, why did it significantly increase again at twelve months post-qualifying, and why was it a highly ranked stressor at twelve months post-qualifying and yet no participant spoke about it at interview?

The high ranking of ‘death and dying’ at the point of qualification may have been a reflection of the advanced nursing student’s perception, as a similar result was found by Por (2005) using the same subscale as in this research in final year UK adult branch nursing students. As the NSS measures the frequency of the stressor, rather than the intensity of the stress felt, it is possible that the participants that responded at Phase 2 of the current study had fortuitously not often experienced having to deal with the deterioration and death of patients by six months post-qualifying. However, it may also have been that because they had only been qualified six months they were not caring for the high acuity patients that might die, or they were still being

supported and preceptored while managing the care of these patients. By twelve months post-qualifying, participants were likely to be managing patient care with less direct support and compounded by work/workload issues, another major stressor identified in this research, 'death and dying' ascended as a stressor.

The result revealed in this research regarding 'death and dying' could be considered further in relation to the theories of cognitive appraisal and stress (Lazarus and Folkman, 1984) and transition. The drop in frequency of 'death and dying' as a stressor at six months post-qualifying may have been because the participants appraised this source of stress as less harmful, threatening or challenging, due to starting to develop their ability to cope with the stressor. However, its return as a source of stress at twelve months post-qualifying suggested reappraisal of 'death and dying' had occurred and once again, it was regarded as a significant source of harm, threat or challenge, but it was not verbalised as a stressor because they were able to adapt through the deployment of the skills they had been developing. Adaptation may also have come about because the participants had developed greater competence through increased familiarity and experience (Benner, 1984; Deppoliti, 2008) and they were more settled at twelve months post-qualifying (a result from this research), as the participants were in the final stage of transition namely 'being a nurse' or 'knowing' (Duchscher, 2001; Duchscher, 2008). Therefore, 'death and dying' was a stressor, but their professional and personal adaptation to the stressor was advanced by twelve months post-qualifying.

8.2.2 *Work/workload*

The results showed that 'workload' was consistently the most frequently occurring source of stress for participants at each time point over their first twelve months post-qualifying. This result was in keeping with Suresh, Mathews and Coyne (2013), who also found 'workload' using the NSS to be the highest ranked stressor in Irish nurses who had been qualified six months or less. Additionally, the longitudinal design of this present research not only revealed the ranked position of this stressor at each time point, it also showed that the frequency of 'workload' as a stressor significantly increased between six and twelve months post-qualifying. As no previous studies

have investigated English or UK newly qualified nurse stressors, let alone over several time points, these results represent new knowledge.

One possible explanation for this result is that preceptorship typically lasts six months and even though the results of this research suggested that not all participants experienced a supervised, supported period of preceptorship it is possible that after six months participants were expected to undertake a greater workload, assume greater responsibility, with less tangible support. They were essentially expected to perform in a way that was akin to a more long-serving nurse (Duchscher, 2009).

From the qualitative data analysis, the likely reasons for why workload was a stressor for participants were determined. The reasons identified from the analysis were an inadequate number of staff per shift sometimes resulting in inappropriate skill mix and trying to complete all nursing tasks within the duration of the shift. These reasons have been identified in previous research with newly qualified nurses in the UK and Taiwan (Maben, Latter and Macleod Clark, 2007; Feng and Tsai, 2012) and mirrored the 'organisational sabotages' described by Maben, Latter and Macleod Clark (2006). The outcome for some participants in this current research was that inadequate staffing meant they had to take charge of the shift, sometimes within a few weeks or months of qualifying, which was a further stressor, reinforcing a similar outcome identified in previous international research (Casey *et al.* 2004; Duchscher, 2008).

A reason that has been proposed for why workload is a stressor for newly qualified nurses is that they lack the ability to prioritise their workload and manage their time (Benner, 1984; Maben and Macleod Clark, 1998; O'Shea and Kelly, 2007; Duchscher, 2008). There was some evidence from participants in this research to support this explanation. The participants disclosed how they felt they had developed their own strategies for managing their workload, but these would get interrupted and disrupted, which would then compromise how they completed their work. Previous research has also identified how newly qualified nurses use self-generated strategies to try and manage their workload (Bisholt, 2012b) and how it can easily be compromised by other work-related issues (Ellerton and Gregor, 2003).

The ramifications for participants of their workload issues was that they spoke of how they often worked beyond the end of their shift, often to complete paperwork, which had been left in order to prioritise patient care, resonating with the high ideals they held. Participants also did not take adequate breaks during their shift, a result that was also found in Australian qualified nurses (Happell *et al.* 2013). Participants reported that they were not eating and drinking appropriately, or were using high energy drinks to keep working instead of taking breaks.

The 'workload' results demonstrate the distinct advantage that utilising a mixed methods approach brought to this research by determining 'what', 'how much' and 'why'. The outcome suggests that workload constitutes a threat to both successful transition and successful adaptation. Participants appeared to be gaining experience, but their heavy, demanding workload was not necessarily affording them the time to develop the skills and knowledge necessary to develop competence. Participants were being placed in situations such as having to take charge of the shift before they were competent to do so, thus creating another stressor. Clearly, participants appraised their workload as stressful, but the secondary appraisal coping strategies they used were not always healthy or sustainable such as excessive working hours and not taking adequate breaks. There was evidence that participants were trying to develop more successful strategies to manage their workload, but the fledgling nature of the skills meant when they were disrupted, there appeared to be no alternative strategy to use. To have the support and guidance of healthcare co-workers might intuitively be regarded as helpful in managing the stress of workload. However, a further stressor identified by participants was workplace incivility.

8.2.3 Workplace incivility

From the quantitative results, conflict with nurses and doctors was in the middle of the rank order of stressors and did not significantly change between time points. However, from the qualitative data, incivility was thematically identified. Suresh, Mathews and Coyne (2013) had a very similar quantitative/qualitative result for this issue. The Irish nurses that had been qualified six months or less in that research reported directly experiencing or witnessing behaviours and attitudes that they

regarded as unacceptable because of how it left them feeling. Examples they provided in that research were being ignored by colleagues, being belittled in front of others and not being given help when they requested it. Behaviour of this kind towards newly qualified nurses has previously been identified nationally and internationally from healthcare co-workers (Maben and Macleod Clark, 1998; McKenna *et al.* 2003; Dyess and Sherman, 2009; Smith, Andrusyszyn and Laschinger, 2010; Bisholt, 2012a; Suresh, Mathews and Coyne, 2013; Rush *et al.* 2014), and specifically from other nurses (Duchscher, 2009; Kelly and Ahern, 2009), HCAs (Chandler, 2012) and doctors (Maben and Macleod Clark, 1998; Duchscher, 2001; Casey *et al.* 2004; Deppoliti, 2008; Dyess and Sherman, 2009; Bisholt, 2012a). All these staff groups were identified by the participants in this current research with the exception of doctors. Only one participant who worked in theatres described incidences of unacceptable behaviour from surgeons during operations. Otherwise, where doctors were mentioned, it was to indicate positive acts of support.

The kind of behaviour described by participants in the current study matched the definition of workplace incivility proposed by Andersson and Pearson (1999):

“Workplace incivility is low-intensity deviant behaviour with ambiguous intent to harm the target, in violation of workplace norms for mutual respect. Uncivil behaviours are characteristically rude and discourteous, displaying a lack of regard for others.” (Andersson and Pearson, 1999)

Fundamental to ‘incivility’ is behaviour that is low-intensity, but still results in “*harmful emotional consequences*” according to D’ambra and Andrews (2014), which captured the ambiguous nature of what the participants described that often left them thinking that no one else could see how they were being treated.

There are several possible explanations for why some participants experienced, witnessed and feared further incivility. It has been argued that nurses are historically an oppressed group due to gender and class (Whitehead, 2010). The outcome is there is an unequal distribution of power within the workplace (Roberts, Demarco and Griffin, 2009). Consequently, nurses do not challenge the power of others in their workplace, but instead turn on those more vulnerable (D’ambra and Andrews, 2014), which would include fledgling newly qualified nurses. However, such an explanation would not account for why in the current study ‘the ‘good’ team’ was

identified, which were nurses operating in the same workplace and healthcare system.

Duchscher and Cowin (2004) argued that there are four generations of nurses currently in the workplace, though most of the Veteran generation are now likely to have retired. Each generation has a different work ethic, perspective on work, ways of managing and being managed, all of which can contribute to conflict in the workplace. Furthermore, the UK nursing workforce currently has registered nurses that completed radically different nurse education from all round the world (NMC, 2008a) and is ethnically diverse (NMC, 2012). This great diversity within a nursing team and amongst healthcare workers can contribute to actual or perceived uncivil behaviour.

The results of this research paralleled other national and international research that newly qualified nurses want to fit into their team and be an active, respected and valued member of it (Kelly, 1998; Maben and Macleod Clark, 1998; Duchscher, 2001; Deppoliti, 2008; Duchscher, 2008; Price, 2009; Andersson and Edberg, 2010; Feng and Tsai, 2012). This illustrates how the newly qualified nurse is essentially an outsider joining a pre-existing team (Malouf and West, 2011). As a consequence of a new person joining, the existing team is plunged into a state of forming, storming, norming and performing (Tuckman, 1965). Part of this process may be that the newly qualified nurse has to learn the covert or hidden rules, rituals and routines of the team they have joined (Maben, Latter and Macleod Clark, 2006; Bisholt, 2012b; Feng and Tsai, 2012; Allan *et al.* 2015). This resonates with the idea that newly qualified nurses have 'interpersonal incompetency', as phrased by Kramer (1974, p. 29-30), where newly qualified nurses are incompetent at understanding and predicting the social values of the system they have just joined.

The reason for the existence of incivility in the workplace and amongst nurses is likely to be multifaceted, but as Duddle and Boughton (2007) found in their study, long-serving nurses develop skills in assessing the environment, anticipate when stressors are mounting and avoid or manage conflict to ultimately protect themselves. Applying the cognitive appraisal and coping theory of Lazarus and Folkman (1984) to that research, it would appear long-serving nurses are able to cognitively (primary)

appraise their work environment and mobilise coping strategies (secondary appraisal) in order to successfully adapt in a more long-term, sustainable way. Arguably, newly qualified nurses do not have such abilities, which is why they are susceptible to the personally-felt effects of incivility. However, there were subgroups of participants in the current study that appeared to have assets that assisted them with managing workplace incivility, workload and the total frequency of their stressors.

8.2.4 Healthcare experience prior to commencing nurse education

A key result in the present research was the difference in the total frequency of stressors reported by participants that had healthcare experience prior to commencing their nurse education. The results showed that these participants entered their nursing career with a lower total frequency of stressors than participants who did not have similar experience. This difference was not evident at six months post-qualifying, but was present again at twelve months post-qualifying. Additionally, these participants also had significantly less frequently occurring stress from 'conflict with physicians' and 'conflict with other nurses' at the point of qualification. The difference was not evident at six months post-qualifying, but there was a significant difference again at twelve months post-qualifying for 'conflict with physicians' and 'workload'.

Considering these results in relation to the cognitive appraisal and coping theory of Lazarus and Folkman (1984), the implication is that the healthcare experience these participants had meant they were more advanced in adapting to work-related stressors than their peers who did not have such experience, as they appraised fewer sources of stress as stressful. In keeping with another result of this research that around six months post-qualifying was the most unsettled time of the transition process for newly qualified nurses, reappraisal of the stressful nature of transition may have been occurring, but by twelve months post-qualifying the participants reappraised again and reconnected to the adaptation skills they entered nurse education with and had developed subsequently. What appeared evident was that their previous healthcare experience made their adaptation to workplace stress more advanced than their counterparts that did not have such experience to draw from.

Furthermore, in considering this result in the context of the stages of ‘reality shock’, the final stages, ‘recovery’ and ‘biculturalism’, are achieved when a newly qualified nurse develops understanding of the new organisation’s culture and workforce (Kramer, 1974). For participants that have previous healthcare experience, the new culture and workforce may not have been so alien to them. It is their experience and the adaptation skills they had already started to develop that potentially assisted them during transition and in particular, in managing the stress of workplace incivility and their workload.

8.2.5 Being an older newly qualified nurse

A collection of significant results in this research were associated with increased age. In relation to stress, increased age was associated with a decrease in the total frequency of stressors at the point of qualification. Determination of this type of association has not been identified before in the newly qualified nurse literature, though Purcell, Kutash and Cobb (2011) did find the same association, explaining 2% variance in a sample of American qualified nurses. Furthermore, the results of this current research showed that increased age was associated with the increased use of some problem-focused coping strategies and less use of some maladaptive coping strategies, less functional social support, and increased total hardiness, ‘commitment’ hardiness, ‘control’ hardiness and resilience, all at the point of qualification. Only at twelve months post-qualifying was increased age positively associated again with the increased use of some problem-focused coping strategies.

The implication of these results in terms of the cognitive appraisal and coping theory of Lazarus and Folkman (1984) is similar to that discussed for the beneficial outcome seen with having previous healthcare experience. Increased age could mean that the process of appraisal, coping and adaptation is more advanced, thus fewer sources of stress are appraised as stressful and more adaptive coping strategies are deployed to cope with the environment. What is challenging to explain regarding the association between increased age and the total frequency of stressors was why this association was only evident at the point of qualification. The result implies that being an older newly qualified nurse is not an enduring asset in managing work-related stressors,

but the results at six months and twelve months post-qualifying were based on a smaller number of participants that may have contributed to the result.

8.3 Coping strategies and newly qualified nurses

The quantitative results showed that there was no significant change in each of the fifteen coping strategies investigated at each time point over the participants' first twelve months post-qualifying. The lack of longitudinal research into the coping strategies used by newly qualified nurses or qualified nurses means that this is a unique result. It has been suggested that people habitually use certain coping strategies in different stressful situations and thus coping strategies can be dispositional as well as situational. There is some research evidence to support this opinion (Carver, Scheier and Weintraub, 1989; Carver and Scheier, 1994). The results of this research concur with this position on the use of coping strategies, as stressful situations in the workplace will be very varied, but the use of each type of coping strategy was relatively consistent. However, this result somewhat conflicted with the relationship each coping strategy had with the total frequency of stressors as significant differences were identified.

The results of this research identified that the most-used coping strategies were the problem-focused strategies: 'planning', 'active coping' and 'use of instrumental social support' and the emotion-focused strategies: 'positive reinterpretation and growth' and 'use of emotional social support'. Therefore, the participants used a mixture of problem-focused and emotion-focused strategies (Carver, Scheier and Weintraub, 1989). Utilising a mixture of problem-focused and emotion-focused strategies reinforces the results of previous research in UK qualified nurses (Bennett *et al.* 2001) as well as international qualified nurses (Chang *et al.* 2006; Lambert *et al.* 2007; Lim, Bogossian and Ahern, 2010; Wang, Kong and Chair, 2011).

'Planning' involves the person thinking or planning how they can address a problem and 'active coping' involves a person directly addressing a problem (Carver, Scheier and Weintraub, 1989). For Carver, Scheier and Weintraub (1989), 'active coping' was akin to problem-focused coping proposed by Lazarus and Folkman (1984) and

was the action of coping. 'Planning' was secondary appraisal. It was the thought process required to select 'active coping' as the strategy to be deployed. Therefore, the two coping strategies complement each other and are both problem-focused in orientation. 'Planning' and 'active coping' from the COPE Inventory and 'planful problem-solving' as it appears in the Ways of Coping Questionnaire have previously been identified as highly-used strategies by UK qualified nurses (Bennett *et al.* 2001) as well as qualified nurses in Australia (Healy and McKay, 2000; Chang *et al.* 2006), China (Lambert *et al.* 2007; Li and Lambert, 2008) and Portugal (Laranjeira, 2012). Additionally, Burgess, Irvine and Wallymahmed (2010) reported that increased conscientiousness and increased agreeableness were associated with increased use of 'active coping' and 'planning' in their sample of forty-six UK Intensive Care Unit nurses, giving an indication of the personality traits of qualified nurses that use this type of coping more frequently.

It was not surprising that 'planning' and 'active coping' were highly-used to manage work-related stressors given the nature of nursing work involves skilful planning to manage patient care. Thematically from the Phase 4 participants, the use of 'planning' and 'active coping' as clear problem-focused coping strategies were also evident in the theme, 'I sorted the problem'. Participants utilised practical, active approaches to directly address a situation. The problem-focused approach was most commonly self-generated, reflecting the cognitive component of both primary and secondary appraisal.

'Positive reinterpretation and growth' was a highly-used coping strategy reported in this research. This is a similar result to other research with international qualified nurses (Bianchi, 2004; Lambert *et al.* 2007). It was also evident, but not acknowledged, in the qualitative study of Australian nurses by Duddle and Boughton (2007). Furthermore, this type of coping was identified from Phase 4 data analysis as the theme, 'analysed it and turned it round'. Also referred to as 'positive reframing' (Carver and Scheier, 1994) and 'positive reappraisal' (Folkman and Moskowitz, 2000), it involves a person reappraising a situation to be less stressful without actually having changed the situation, or by ignoring parts of the situation (Lazarus and Folkman, 1984). 'Positive reinterpretation and growth' was interpreted from Phase 4 participants' narrative because they used a process of reflection about a

situation and themselves and others within the situation to reappraise then neutralise the impact the situation had on them, but they did not actually address the problem directly. This was often used to cope with uncivil behaviour. This illustrates the opinion of Carver, Scheier and Weintraub (1989) that 'positive reinterpretation and growth' is an emotion-focused coping strategy, but it has the potential to return the person to problem-focused coping. Whether it returned the Phase 4 participants to problem-focused coping could not be determined from analysis of the data, but it did appear to diminish the distress the situation had created for some of the participants.

Coping has been conceptualised as synonymous with control (Lazarus and Folkman, 1984). The function of coping is either to control the environmental stressor (problem-focused coping) or to control the emotions produced by the stressor (emotion-focused coping) because the problem is not controllable or able to be changed (Lazarus and Folkman, 1984). On this basis, there is no function of coping that is more desirable than another, as it is dependent on the situation (Lazarus and Folkman, 1984; Lazarus, 1993). However, the popularity of the use of 'positive reinterpretation and growth' or 'positive reappraisal' found in this present research may be indicative of how much control newly qualified nurses perceive they have over their workplace environment and notably over workplace incivility. Furthermore, a lack of power and a low position in the healthcare hierarchy, discussed earlier in Section 8.1.1.2 as an identified aspect of transition, also resonates with this interpretation of the result. It is possible that newly qualified nurses feel that they lack control and power, and secondary appraise that deploying a problem-focused coping strategy is not possible, so they frequently resort to managing their emotions through the use of reframing the situation into something less stressful.

A further possible explanation for this result is that cognitive appraisal can be regarded as a search for meaning, where situational meaning is informed by a person's global meaning, which is their beliefs, values and goals. Global meaning influences the way a person attempts to make sense of a situation that threatens them (Skaggs and Barron, 2006). The results of this research have identified the strong commitment participants have to their 'high ideals', seen as an aspect of transition as well as a stressor. Folkman and Moskowitz (2000) suggested that positive reappraisal, more than coping strategies such as avoidance, requires deep exploration

of one's beliefs, values and goals; their global meaning. Therefore, it is possible that the participants in this research had a strongly developed global meaning regarding their nursing practice. Consequently, they migrate towards a coping strategy that also requires a strong sense of global meaning, 'positive reinterpretation and growth', to cope with work-related stressors.

The only problem-focused coping strategy to be significantly associated with work-related stressors was 'suppression of competing activities' at six months post-qualifying. Increased stressors at this time point were associated with the increased use of this coping strategy. Given that this research and some previous research (Duchscher, 2008; Goode *et al.* 2009) showed that the most unsettled time for newly qualified nurses was around six months post-qualifying, this result may imply that the multiple organisational and professional stimuli that newly qualified nurses have been shown to experience (Feng and Tsai, 2012) may at this time point have been reappraised as requiring 'suppression of competing activities' to cope with their environmental stressors. Furthermore, this may link to how participants reported trying to manage their workload, discussed in Section 8.2.2. Participants managed their workload with a self-generated plan per shift, which was stressful for them when it got interrupted. The participants' 'suppression of competing activities' may have been a reflection of how they coped by trying to focus on completing their planned workload and limit or 'suppress' interruptions.

The results of the current research showed that the least-used coping strategies by participants at each time point over twelve months were 'denial', 'behavioural disengagement' and 'substance use'. Bennett *et al.* (2001) used the Brief COPE Inventory and similarly found that 'substance use' and 'denial' were the least-used coping strategies in UK qualified nurses, though the sample included ward managers and HCAs. Lyne and Roger (2000) categorised these coping strategies together with 'mental disengagement' as avoidance coping strategies (see Table 4.5). Using the coping strategy 'escape-avoidance' from the Ways of Coping Questionnaire, Laranjeira (2012) and Healy and McKay (2000) found that it was the least-used coping strategy in their samples of Portuguese and Australian qualified nurses respectively. Furthermore, at the point of qualification the higher the total frequency of stressors, the greater the use of 'focus on venting of emotions', 'behavioural

disengagement', 'mental disengagement' and 'substance use'. At six months post-qualifying, they were all still evident except 'mental disengagement'.

It is possible that the low reported use of 'denial', 'behavioural disengagement' and 'substance use' occurred as a result of social desirability responding, where participants do not respond truthfully because of how they may be perceived by those viewing their responses (Streiner and Norman, 2008). Evidence for this potential problem came from the pilot study, which highlighted participants' concerns in relation to the 'substance use' questions because of the professional implication they felt was associated with their responses (see Section 4.5).

Thematically, the use of avoidance strategies was evident in 'avoiding the problem'. As an example, some participants described how they would avoid individuals that had been uncivil to them (co-workers and patients' relatives), deliberately staying out of their way. Duddle and Boughton (2007) identified how long-serving nurses similarly used avoidance to manage workplace conflict. In that research the long-serving nurses had developed a strategy to assess their environment and the people within it and deliberately took steps to avoid conflict by regulating their actions and communication with others. It was ultimately a self-protection strategy. Therefore, if the result in the current study is not solely a socially desirable response, a potential explanation for the result is that the participants used avoidance strategies in the workplace as a self-protection strategy, at least when faced with incivility. Moreover, this strategy does not address the problem of incivility, thus it is an emotion-focused strategy. However, Lazarus and Folkman (1984) argued that the functionality of a coping strategy lies in assessing the strategy's short-term and long-term effectiveness. For the participants in this research, the self-protection qualities of using avoidance means that caution and further exploration is needed before the use of avoidance strategies are regarded as wholly dysfunctional.

Despite being the least-used coping strategies there are important implications for the participants that did report using avoidance strategies, especially given their significant associations with work-related stressors over approximately the first six months post-qualifying. Carver and Scheier (1994) regarded these coping strategies as having the highest potential to be dysfunctional and maladaptive. Increased use of

escape-avoidance coping along with diminished use of positive reappraisal and planful problem-solving has been implicated in newly qualified nurses' turnover intention (Beecroft, Dorey and Wenton, 2008). International research has shown that increased use of avoidance coping has been associated with increased job stress and decreased job satisfaction (Gellis, 2002) as well as a significant predictor of mood disturbance in nurses (Healy and McKay, 2000) and poor mental health (Lambert *et al.* 2007). Similarly, Chang *et al.* (2006) found that nurses that used more escape-avoidance coping had poorer mental health and Gibbons, Dempster and Mountray (2011) found that its use resulted in reduced well-being in UK nursing students. Donovan, Doody and Lyons (2013) argued that nurses who use avoidance coping might clinically respond to patients, but not with the element of caring required, though no empirical evidence was provided for such an opinion. The high ideals evident in the participants in the present study would arguably counteract the assertion of Donovan, Doody and Lyons (2013). A rare, positive aspect of avoidance coping found in the literature was that it was not associated with increased sickness absence in a large sample of Dutch nurses (Schreuder *et al.* 2011). Therefore, even though avoidance coping strategies were the least-used of the strategies measured, the fact that they were used and were associated with increased reported stressors is an important insight into how newly qualified nurses cope with work-related stressors, particularly in the initial months post-qualification. There may also be implications for the mental health and well-being of newly qualified nurses that use avoidance coping strategies.

8.4 Social support and newly qualified nurses

8.4.1 Structural social support

The results from Phases 1-3 showed that overall there was a broad range of people that could make up a participant's structural social support or their social network. There were nineteen different sources of support identified, though on average participants utilised four to five people in relation to their work-related stressors. This result was broader, more diverse than the social network identified by Brown and Edelman (2000), predominantly because the participants in the current research

were given a far bigger list of options to choose from with the option of adding other sources of support not listed. However, the result does mirror the broad range of sources of support Timmins *et al.* (2011) found in their investigation of how Irish nursing students coped with stress. Similarly, Kent, Anderson and Owens (2012) found that New Zealand qualified nurses utilised a wide range of people within the healthcare environment and outside of it when they were asked to indicate who they had accessed for support to help them cope with their first experience of a patient dying.

The most utilised sources of support by participants were their ‘nursing colleagues’, ‘husband/wife/partner’ and ‘friends’. This was essentially the same as the sources of support that doctors used following a memorable patient death (Moore *et al.* 2007). Qualitative analysis of the Phase 4 data revealed possible explanations for this result. One explanation for who they used is ease of availability. Participant A15 felt this was the reason why their husband was used for support. He was the first person they saw when they got home from work (see Section 6.5.3). Another potential explanation identified from the data analysis is a shared understanding of the stressors and a commonality in experiences that are encountered. This might be one reason why newly qualified nurses recommended a forum where they can meet regularly so they can talk and share with each other (see Section 7.3.4 and Appendix 18). A further possible explanation is that the sources of support were people participants trusted. Kramer (1974) suggested that during the ‘shock and rejection’ stage of transition newly qualified nurses become fearful and mistrusting of work colleagues because they have not learnt about the new subculture they have entered. Previous research has shown that Canadian newly qualified nurses felt mistrust with those they worked with (Duchscher, 2008) and this was evident in this present research in that participants had to learn who in their team they could utilise for meaningful support.

At six and twelve months post-qualifying, the longitudinal design of this research was able to show that one of the least-used sources of support was ‘former nursing student colleagues’. This was in keeping with the thematically determined ‘comparing and being judged’, part of the ‘personal transition experience’ identified in Phase 4 participants. Participants compared themselves, their experiences and

opportunities to other former nursing students, or were subjected to comparisons by them. Consequently, former nursing student colleagues did not appear to be a beneficial source of support for work-related stressors. They may actually have been part of the social network of the participants that was a source of stress (Lazarus and Folkman, 1984).

A source of support that was evident at all three phases of the research was ‘your teacher’. From her composite of four different studies from Canada and Australia on the transition experience of newly qualified nurses, Duchscher (2009) reported that staff and peers were lost as a source of support once the newly qualified nurse commenced work. Newly qualified nurses do not necessarily anticipate that they will have to develop new sources of support because as nursing students they are used to the support provided by their HEI (Riegel, 2013). Indeed, one of the findings from a study involving UK newly qualified nurses was that it was only once they commenced qualified work that the participants realised how diverse and plentiful formal pre-registration support was (Horsburgh and Ross, 2013). The results of the present study suggest that for some participants the quality of the relationship they had established as a nursing student with HEI staff meant that it remained a source of support for them after they had left the HEI. The result also shows how the HEI can remain an important source of support for at least the first twelve months post-qualifying. However, an alternative explanation is that newly qualified nurses that continue to access HEI staff for support are exhibiting a sign of the ‘shock and rejection’ stage of transition, as they are thinking about the past and need reassurance from their former teachers (Kramer, 1974).

8.4.2 Functional social support

The premise of the functional social support questionnaire used in this research (MOS Social Support Survey) was that if different types of support with associated reasons were available to a person, then they could access that support if they felt they needed it (Sherbourne and Stewart, 1991). The types of functional social support measured were ‘emotional/information’, ‘tangible’, ‘affectionate’ and ‘positive social interaction’, as well as their ‘overall support index’. The COPE

Inventory also contained an instrumental social support subscale (akin to information support) and an emotional social support subscale. The dispositional focus of the COPE Inventory determined how often the type of support was typically utilised, thus conceptually it determined a different aspect of ‘emotional/information’ social support. This is worthy of note in considering the result in this research for the age of the participants and functional social support.

The results showed that at the point of qualification, the younger the participant, the more functional social support they had available. The association between age and social support has not previously been reported in the literature. However, there was no association identified between age and instrumental or emotional social support using the COPE Inventory. Additionally, this research also found that the younger the participant, the greater the total frequency of stressors they reported at the point of qualification. These combined results suggest that the younger the participant, the more stressors they experienced, but they had more functional social support to access possibly to help them with these stressors, yet they did not actually make use of the resources they had for emotional or instrumental reasons. This may have left younger participants more vulnerable during their transition than older participants. All these associations were not subsequently identified at six months or twelve months post-qualifying, but it is a unique insight into age-related issues for newly qualified nurses at the point of qualification. This was only possible because of the longitudinal, multi-concept approach this research used.

Overall, there was no significant association between any type of functional social support or the ‘overall support index’ and the total frequency of stressors at any time point during the first twelve months post-qualifying. The same result was found analysing instrumental and emotional social support from the COPE Inventory. There was also no significant difference in the relatively high level of social support the participants believed was available to them at each time point over their first twelve months post-qualifying. These results suggest that participants had consistently available social support as a coping resource. Whether they drew from this resource to keep their stress experience relatively stable or it was not used at all to manage stress, and thus stress and social support are completely independent of each other, cannot be determined from the data. It has been stated that if social

support is regarded as a strategy to cope with stress, its effectiveness is unclear (Lim, Bogossian and Ahern, 2010). The results of this research are suggestive of the link to stress being unclear. A further explanation is that there might be functions of social support that are much more pertinent to nursing and the clinical environment that were not represented in the social support questionnaire used in this research, as the questionnaire had not been designed for this purpose (see Section 4.4.1.3).

8.4.3 ‘Support in action’

‘Support in action’ was the main social support-related theme identified from the Phase 4 qualitative data analysis. It was phrased to capture the participants’ narrative that support was more than just a word as there was tangible action involved. Some participants clearly felt that they were part of ‘the ‘good’ team’, which contrasted with ‘feeling a bit alone’ identified as a ‘personal barrier during transition’ and mitigated some of stress experiences in ‘feeling terrified and criticised’. Overall, the results reinforced a finding from a previous UK study of newly qualified nurses up to one year post-qualifying (Horsburgh and Ross, 2013), that the experience of active support in a job location could be very variable.

The results uniquely showed a pathway of supportive actions. Support can, and for some did, start pre-employment, was in place on the first day of employment, continued over the initial weeks and remained in place overtly thereafter. Newly qualified nurses can feel scared and daunted when they first start their nursing job (O’Shea and Kelly, 2007), yet Deasy, Doody and Tuohy (2011) found in a sample of Irish newly qualified nurses, they commenced their first qualified job with an expectation that they will receive support. Not feeling welcomed and staff not even knowing the newly qualified nurse was commencing their employment have been identified as factors that can lead to newly qualified nurses resigning (Chandler, 2012). Given that participants in this present study chose to report a positive appraisal of their pre and peri-employment support highlights the personal benefits and potential reduction in turnover that might be gained from such initiatives.

The attributes participants assigned to a ‘good’ team were that they were professional in their nursing roles, worked effectively together, were respectful of each other and offered each other consistent, reliable support. The opinion of a newly qualified nurse was valued as much as a more long-serving nurse. They were allowed to take their time and to learn as their newly qualified status was recognised and respected. Team members were approachable and accessible, though it was the most senior staff that was named in this regard. Overall, participants did not feel alone, in direct contrast to an identified barrier during transition. While some of these attributes of a supportive clinical environment have been identified in previous research from the UK (Allan *et al.* 2015) and the United States of America (Chandler, 2012), the results of the current research provide unique insight into the importance the participants placed on the qualities of the team they worked with. The results suggest that the attributes of the ‘good’ team are congruent with their ideals of professionalism and the standards of nursing practice the participants held. Consequently, it is possible they are less likely to be the ‘disappointed idealist’ suggested in Section 8.1.2.1.

The present results suggest, also, that rather than the term ‘role model’ applying to an individual, it applied to the ‘good’ team. The ‘good’ team was a role model for the participants to learn how a team should perform to meet the needs of the patients and each other. Maben and Macleod Clark (1998) identified in their UK research that newly qualified nurse transition was easier when there was trust and respect within the team they worked in. The current study has extended those attributes of the team as facilitators of a positive transition experience. It also illustrates how socialisation and professionalism are part of newly qualified nurse transition. Furthermore, Kramer (1974) argued that part of the ‘shock and rejection’ stage of transition was to reject the ideals and values that were taught in their nurse education and adopt the ideals and values of the workplace. However, arguably, if the ‘good’ team share the same ideals, rejection is not necessary, so potentially transition is less traumatic and more successful. It also implies that high standards of professionalism and patient care can be maintained through the next generation of nurses that have entered the workplace.

Of all the different members of a team, it was the manager that appeared most important to participants in influencing their work experience as a newly qualified nurse and within that, if they perceived they were part of a 'good' team. This, to some extent, mirrors the outcome of a UK study of nurses and midwives that found that the behaviour of a manager was a direct cause of individual stress (Taylor, White and Muncer, 1999). There was evidence that the attributes and actions of the manager were being used by participants to role model how they wanted to perform in the future as a manager or leader of a team. Mannix, Wilkes and Daly (2013) identified from their integrative review features of effective clinical leadership namely being supportive to the team, having effective communication skills, being a role model and empowering the team. The current study identified a far broader range of features. The attributes and actions identified in the manager as 'support in action' were that the manager was approachable, accessible, praising of good work, constructively advising and guiding, facilitative of their need to keep learning and developing, showed they could and would work clinically as well as managerially and was an inspirational leader in command of their team. The manager also demonstrated an understanding of what the stressors were for a newly qualified nurse and attempted to try and reduce the potential stressors if possible.

Australian research has shown that newly qualified nurses perceive that the manager is crucial in determining how the team functions, which in turn informs how the newly qualified nurse perceives the team (Kelly and Ahern, 2009). Indeed, Andrews *et al.* (2005) found nursing students regarded the ward manager as "*pivotal*" in influencing the attitudes of the whole ward. This suggests that the importance of the manager may be established early on in the process of professional development and socialisation of nurses, which may account for why the manager was identified as having primary importance to the participants in this research. Overall, the identification of inspirational leadership from some managers and the positive effects that had on participants and the teams they worked in was encouraging given it is a fundamental component of the UK strategy for compassion in practice (NHS Commissioning Board and Department of Health, 2012).

Furthermore, transition is known to be associated with requiring a huge amount of personal energy to navigate (Kramer, 1974; Duchscher, 2009; Andersson and

Edberg, 2010; Feng and Tsai, 2012). Depletion of energy may be compounded by noted workload stressors that resulted in not eating and drinking appropriately, or using high energy drinks to keep working instead of taking breaks. Laschinger, Finegan and Wilk (2009) found that the manager was central to the level of emotional exhaustion reported by Canadian newly qualified nurses. Additionally, that research showed that working in an environment that was perceived as supportive, with nurses that were regarded as civil in their behaviour towards the newly qualified nurses, made them feel empowered, which reduced their emotional exhaustion. If transition for newly qualified nurses involves mastering the professional-bureaucratic conflict (Kramer, 1974) then the manager is potentially crucial in how the newly qualified nurse learns to function and perform in the bureaucratic system. The manager thus has the potential to be appraised by newly qualified nurses as a vital coping resource in successfully progressing through transition.

8.5 Hardiness and resilience in newly qualified nurses

Participants struggled to comprehend the meaning of hardiness and resilience at Phase 4. Consequently, the key results pertaining to hardiness and resilience were the determination of how hardy and resilient newly qualified nurses were at each of the time points over their first twelve months post-qualifying, if there was a significant difference in their levels for each between time points, and the relationship hardiness and resilience had to the total frequency of reported stressors. There is minimal existing knowledge on these three issues and none specifically that relates to newly qualified nurses, thus the results constitute new knowledge. Indeed, there is minimal existing knowledge that relates to nursing students and qualified nurses in UK or international populations to be able to compare or situate the results.

The research results showed that the participants were moderately hardy in terms of their total hardiness score at each time point. Within this, the participants were moderately 'control' hardy and 'commitment' hardy, but showed less 'challenge' hardiness. No previous research had measured hardiness in newly qualified nurses or qualified nurses, but Hegge, Melcher and Williams (1999) measured hardiness in a

sample of American nursing students and also found that the sample was lower in 'challenge' hardiness. More broadly, there was an absence of any significant results for the 'challenge' hardiness subscale in the current study. This mirrors the results of other research using non-nursing populations (Klag and Bradley, 2004; Cash and Gardner, 2011) and supports the argument that the three dimensional construct of hardiness needs re-examination, in part because of the repeated weakness of 'challenge' hardiness within the construct (Funk, 1992).

The results showed that the participants were relatively high in resilience with a mean score ranging 72-75 (scale range 0-100) over the first twelve months post-qualifying. Only one other study was found that had measured resilience in newly qualified nurses. Laschinger *et al.* (2013) determined the level of resilience in n= 272 Canadian newly qualified nurses who were one year or less post-qualifying. They used a resilience subscale, rather than a dedicated resilience questionnaire as used in the current research and measured their participants at one time point, rather than the three time points in this study. Laschinger *et al.* (2013) found that the Canadian newly qualified nurses had a high level of resilience. The only other relevant study found was Gillespie *et al.* (2007). In that research they used the same resilience questionnaire as used in the current research and reported a mean score of seventy-six from a sample of n= 772 Australian theatre nurses. Therefore, the relatively high level of resilience identified in this current research was similar to the very limited international literature available.

This current research uniquely measured hardiness and resilience at three time points over twelve months to determine if either changed. McDonald *et al.* (2012) delivered an educational programme to teach improvements in personal resilience to fourteen nurses and midwives in Australia. Unfortunately, they did not measure resilience pre and post-programme and their overall evaluation of the programme was superficial, so it was not possible to determine if resilience increased or was sustained between the two time points, even if it was potentially due to education on resilience. No other longitudinal research was found in any sample population to determine if hardiness and resilience changed between time points, thus this research produced new knowledge on this aspect of hardiness and resilience. The results showed that there was a significant decrease in total hardiness and 'control'

hardiness between the point of qualification and six months post-qualifying and the point of qualification and twelve months post-qualifying. There was no significant difference between each time point over the first twelve months post-qualifying for resilience. Resilience remained relatively high at each time point. Both of these results constitute new knowledge on the instability of hardiness and stability of resilience, at least within newly qualified nurses.

Hardiness is regarded as a trait and thus should be relatively stable over time (Cash and Gardner, 2011). The significant decline in hardiness identified in this research is at odds with conceptualising hardiness as a trait as no significant difference between each time point would have been expected. However, the result is interesting particularly in regard to the significant decline in ‘control’ hardiness. The result might imply that participants felt less in control or less able to control their environment at six months and twelve months post-qualifying when compared to how they felt at the point of qualification. However, this explanation implies cognitive appraisal of the workplace environment. Cash and Gardner (2011) argued that appraising the environment as a challenge was not the same as ‘challenge’ hardiness because for them, hardiness was a stable trait, so a person would usually regard situations as a challenge, whereas cognitive appraisal is situation-specific. The same argument could be applied to an appraisal of controllability of a workplace situation versus ‘control’ hardiness as a personality trait.

In contrast, resilience is not regarded as a trait, rather it will alter and develop as new protective strategies and coping strategies are developed and adaptation occurs when adversity is faced (Richardson *et al.* 1990; Richardson, 2002). It was unexpected that resilience did not significantly change between each time point. Given the breadth of stressors and the aspects of transition that were found as a result of this research, it is difficult to surmise that the participants did not face adversity, the prerequisite for developing resilience (Jackson, Firtko and Edenborough, 2007). This result for resilience suggests that resilience might have more trait-like qualities than previously thought, at least in newly qualified nurses. However, given that resilience is considered a collection of personal attributes such as hope, self-efficacy and coping (Stephens, 2013), affected by contributing factors such as workplace issues, psychological emptiness and reduced inner balance (Hart, Brannan and de

Chesnay, 2014) and contextual factors such as team and organisational support (McCann *et al.* 2013), understanding resilience continues to evolve.

Possibly of more value than simply determining how hardy and resilient newly qualified nurses are, was the relationship each had with the total frequency of reported stressors. The results showed that at the point of qualification only, increased total hardiness (though not its three constituent parts) and resilience was associated with a decrease in the total frequency of stressors. No previous research was found that had longitudinally determined the association hardiness or resilience had with stress in any population. Therefore, this research provides new knowledge on the potential relationship hardiness and resilience might have to newly qualified nurse stressors. This outcome implies that hardiness and resilience both act as personal resources in the primary appraisal of work-related stressors, though why neither were enduring resources is challenging to explain, though for resilience the wider contributing and contextual factors discussed may be relevant.

The results of this study can be considered in terms of whether it is worthwhile to invest in training to enhance hardiness and resilience. The stress-related results suggest that increased hardiness and resilience are both associated with a reduction in reported stressors at the point of qualification. The implication is that training pre-registration to enhance hardiness and resilience would benefit newly qualified nurses. Given a further outcome of this research that the most stressful time during transition is the first few months post-qualifying enhanced hardiness and resilience may be helpful. Additionally, while the association between hardiness/resilience and stress was not evident at six and twelve months post-qualifying, the level of hardiness in the participants diminished over those time points. The level of resilience remained relatively stable and high. Overall, there is evidence that training to enhance hardiness, but not resilience may be beneficial post-registration. However, the recommendation for hardiness and resilience training is muted as, while it has been suggested that hardiness (Lambert, Lambert and Yamase, 2003; Judkins, Reid and Furlow, 2006) and resilience (Hall and Pearson, 2005; McAllister and McKinnon, 2009; McDonald *et al.* 2012) can be enhanced through skills development programmes, there remains a lack of suitably sized, robustly evaluated,

longitudinal research to evidence that sustained improvement is possible to make it a worthwhile investment pre or post-registration.

8.6 ‘Support in action for the future’ for newly qualified nurses

8.6.1 Pre-registration nurse education

Unlike some previous international research (Duchscher, 2001; Feng and Tsai, 2012) participants articulated that they felt that there was nothing more that the HEI could have done to prepare them for the experiences they encountered as newly qualified nurses. Their nurse education could not provide them with all the skills, knowledge and diverse clinical experiences required in three years, thus they anticipated that on commencing their qualified nursing practice they had more to learn. This outcome reinforced earlier research from the UK (Maben and Macleod Clark, 1998) and the United States of America (Chandler, 2012). However, this result is at odds with a facet of the second ‘shock or rejection’ stage of ‘reality shock’ (Kramer, 1974), whereby newly qualified nurses can be highly critical of the nurse education they received, regarding it as having ‘failed’ to prepare them for the alien culture they now worked in. The implication of this present research result may be that UK nurse education provides acceptable preparation, including being realistic about the deficits that will inevitably still exist at the point of qualification. Consequently, there is considerably less of a gap, than has previously been argued, between theory and practice (Whitehead and Holmes, 2011; Freeling and Parker, 2015).

Many of the participants suggested that they would have benefitted from a session towards the end of their nurse education where they had the opportunity to hear the transition experience of nurses that had been qualified for approximately twelve months. They wanted to be able to ask questions, find out how they managed situations and use these nurses as preparation for their own possible experience once qualified. Lazarus and Folkman (1984) stated that secondary appraisal could occur before primary appraisal and this pre-graduation session would be an example of this. If the participants had been given this opportunity, they would have used what they heard to think about what their coping strategies would be if they were to

encounter similar stressful situations, which in turn might aid how they primary appraise their work environment and assist their transition experience.

Pertinent to the HEI was that many participants expressed that they benefitted as a newly qualified nurse from having undertaken their final management placement of the nurse education in a location where they commenced their first qualified nurse job. Participants felt they benefitted because they became familiar with the nursing team and who they could utilise for support, as well as the practicalities of location routines, procedures and layout. Familiarity diminished a fear of the unknown. This suggestion from the participants mirrored a recommendation from a previous UK study of newly qualified nurse transition (Ross and Clifford, 2002). However, such a strategy was shown in the current study to only facilitate transition if the new status of the now qualified nurse is recognised and embraced by the team they are re-joining.

8.6.2 Job location and the wider organisation

Participants at Phase 4 reported a varied experience of preceptorship over their first six to twelve months of qualified practice (see Appendix 17). This was the case even within the same organisation and, through the rigour and strength of this present study, provides support for the findings of a much smaller Northern Ireland study (Lewis and McGowan, 2015). While some participants were supported and facilitated in their development, others described having to self-manage their development. This is contrary to the Department of Health (2010) recommendation that all healthcare practitioners in England should have equitable access, experience and outcomes from preceptorship. From the participants in the current research, preceptorship from a personal and organisational stance seemed to centre on completing skills and medication administration achievement documentation, which given the broader results of this research would appear a narrow focus on the developmental needs of a newly qualified nurse. Furthermore, the Department of Health (2010) produced guidelines for preceptorship in England suggesting the aim of preceptorship should be to consolidate the abilities newly qualified nurses already have, enhance their competence, continue with their professional development and

build their confidence, so they can work independently, autonomously and innovatively. This is also a far broader intention behind preceptorship than just skill acquisition evidenced through documentation.

Even though there were only a few participants at Phase 4 who worked in community locations, their narrative described the benefits they derived from a comprehensive induction programme that introduced them to key staff and taught them specialist skills that would immediately help them in their patient care. This was in contrast to generic 'new employee' induction programmes described by some hospital-based participants. These community participants also illustrated how their induction dovetailed into their preceptorship, thus their passage of development was uninterrupted and co-ordinated.

There are a few examples in the UK literature where programmes for newly qualified nurses beyond a basic preceptorship arrangement have been conducted. Tapping, Muir and Marks-Maran (2013) reported on an initiative between an English NHS Trust and an English HEI. A structured development scheme was introduced to develop newly qualified nurses over their first eighteen months with the aim of preparing them for promotion to Band 6. There were four components to the programme underpinned by a self-assessment document that formed the basis for a development plan. Integral to the programme was preceptorship, clinical supervision, role development and leadership development. Their performance and development in line with their plan was reviewed in a joint meeting with their preceptor at twelve weeks post-qualifying and then at set time points up to eighteen months post-qualifying. The programme was evaluated by forty-four participants, the majority indicating that the scheme allowed them to identify their strengths and weaknesses and create their own strategies for addressing their weaknesses. However, the evaluation was weakened by only using simple quantitative questions and one open-ended question that only a few of the sample answered. Evaluation of the programme could have been more far-reaching and in-depth such as evidencing any long-term organisational benefits including turnover rates, sickness absence rates and job satisfaction.

In Scotland, Jamieson, Harris and Hall (2012) described the Flying Start NHS[®] initiative that has now been implemented throughout the country with Scottish government support. Flying Start NHS[®] is a web-based structured learning package consisting of ten different work-based learning units. All newly qualified nurses are encouraged to register with the organisation as soon as they commence their first qualified nurse job. They are then assigned a workplace mentor and together they plan a time frame for achieving the units, which usually takes no more than a year. Successful completion leads to certificates for their portfolio. Practice Education Facilitators assist newly qualified nurses, mentors and managers with successful completion of the Flying Start NHS[®] programme. However, what is not clear from this description and a similar one by Stewart and Barber (2011) is what support is offered to a newly qualified nurse who chooses not to enrol on Flying Start NHS[®] and what the implications are for a newly qualified nurse who fails the programme.

What the initiatives reported by Tapping, Muir and Marks-Maran (2013) and Jamieson, Harris and Hall (2012) have in common is their duration and innovation. However, a systematic review of UK and international interventions for newly qualified nurses up to one year post-qualifying concluded that it was less about the composition of an intervention and more that the organisation had overtly recognised the newly qualified nurse and that staff had supported their needs, rather than leaving them to find their way alone, which lead these interventions to have a positive impact (Edwards *et al.* 2011).

The Phase 4 participants that discussed preceptorship experienced it or understood it to be six months in duration. This is somewhat at odds with the Department of Health (2010) recommendation that preceptorship can be six to twelve months in duration. Newly qualified nurses need preceptorship as a developmental programme that lasts at least twelve months so that it fully covers their period of transition (Maben, Latter and Macleod Clark, 2006; Dyess and Sherman, 2009; Kowalski and Cross, 2010). The results of the current study suggested the experience of transition lasted six to twelve months following qualification with the most unsettled time around six months post-qualifying. Additionally, the stressors, 'workload' and 'death and dying', significantly increased between six months and twelve months

post-qualifying. Given this evidence, it would seem counter-productive to end preceptorship before twelve months post-qualifying.

As shown in Table 7.1, for the Phase 4 participants that started their job location with at least one other newly qualified nurse, they regarded this as personally beneficial. However, they commented how this did not always translate into working directly together because often they were not on the same shift, which was not viewed so positively. Furthermore, participants recommended that their organisation should run a regular forum for newly qualified nurses to meet, learn and share experiences, a suggestion that has also been made from international research (Duchscher, 2009; Kowalski and Cross, 2010). It could also provide an opportunity for newly qualified nurses to share their experiences with senior managers (Dyess and Sherman, 2009). An online forum for newly qualified nurses is part of the Flying Start NHS[®] initiative and has been praised by the newly qualified nurses on that programme because it addressed their feelings of isolation (Jamieson, Harris and Hall, 2012). Overall, enabling newly qualified nurses to work together and meet up for peer support would reflect outcomes of the present research that talking is the most consciously used coping strategy and that a personal barrier during transition is ‘feeling a bit alone’.

8.7 Chapter Summary

This chapter has discussed the major results of the current study in the context of existing literature and the main underpinning theories. Key outcomes of the discussion are that newly qualified nurse transition is a rollercoaster of experiences and confidence lasting six to twelve months involving professionalisation, socialisation and adaptation. Transition involves newly qualified nurses re-shaping their professional self-identity and this links with them finding and knowing their place in the workplace hierarchy and developing an awareness of perceived power. It was postulated that part of a positive transition experience is feeling valued and listened to, characteristic of this generation of nurses, but there are sabotaging factors within the workplace such as incivility.

Participants articulated high, uncompromising personal and professional ideals about being and performing as a nurse, as well as a strong commitment to their learning and development right from the beginning of their qualified nursing career. These are noteworthy results in the context of recommendations from the Mid Staffordshire public inquiry (Parliament. House of Commons, 2013) and the expectations of the NMC regarding the professional practice of newly qualified nurses. Exploration of the different types of idealism seen in newly qualified nurses led to the suggestion that a new, fourth type of idealist has been identified in this research, 'the disappointed idealist', as participants appeared disappointed in the behaviour and performance of some nurses they worked with. It was also argued that the results of this research challenge the assertion from the theories of transition that ideals get dropped or modified.

Newly qualified nurse transition was evident within the stressors and stress-mediating factors identified in this research. This is important as it provides empirical justification, unlike much of the existing literature, that transition is stressful. Furthermore, some stressors are self-imposed, while others originate from the environment in which the newly qualified nurse works. Stressors that were related to the job: 'death and dying', 'workload' and workplace incivility, show cognitive appraisal, professional development and adaptation, the latter two also resonating with socialisation. It was postulated that the great diversity within a nursing team and amongst healthcare workers may contribute to actual or perceived uncivil behaviour. The participant's desire to be part of their team was contrasted with arriving as an outsider to the team as a further possible explanation. Analysis and discussion highlights key findings that being of older age and, in particular, having healthcare experience prior to commencing their nurse education were assets for participants in relation to their perception of multiple stressors at varying points over the first twelve months-post-qualifying.

The participants used a mixture of problem-focused and emotion-focused strategies to cope with workplace stressors. It was not surprising that 'planning' and 'active coping' were highly-used to manage work-related stressors as they both reflect the nature of nursing work. 'Positive reinterpretation and growth', also called 'positive reappraisal', was a highly-used coping strategy with the evidence suggesting it was

frequently used to cope with uncivil behaviour. It was argued that its use was indicative of how much control newly qualified nurses perceive they have over their environment as the strategy manages their own thoughts and feelings, rather than directly addressing the problem. However, this argument was contrasted with another possible explanation that the use of this type of coping strategy is associated with having a strong global meaning, which the participants showed through their high ideals. Consequently, the frequent use of this type of coping strategy is not unexpected. Overall, the functionality of a coping strategy lies in assessing the strategy's short-term and long-term effectiveness rather than categorising a strategy as desirable/undesirable or adaptive/maladaptive.

The social network participants use in relation to work-related stressors is relatively small, but diverse. From this new evidence it was postulated that amongst the reasons why a specific person is utilised is their immediate accessibility when support is needed and/or a shared understanding of nursing or healthcare. A collection of age-related quantitative results were analysed. From this it is suggested that the younger the participant, the more total stressors they have, but they also have more available functional social support, though they failed or chose not to access that support. This unique insight implies younger newly qualified nurses may be more vulnerable during their transition.

'Support in action' was the main social support-related theme from the results. It was argued that an ongoing pathway of supportive actions is beneficial, starting from pre-employment. The attributes participants assigned to a 'good' team are congruent with the high ideals they held and assist with transition-related socialisation. The attributes contrasted to the identification of the 'disappointed idealist'. Furthermore, it was suggested that as well as the term 'role model' applying to an individual, it also applies to a 'good' team. The attributes and actions participants identified in the manager link to the possibility that participants view their manager as a role model for how they want to perform in the future as a manager or leader of a team.

There is very little previous research on the hardiness and resilience of nurses to situate the results, especially given the results for both were unexpected.

Consequently, new hardiness and resilience knowledge has been generated by this

study. The theoretically-expected stability of hardiness and change in resilience was not found in this research. Instead, hardiness and ‘control’ hardiness declined at six months and twelve months-qualifying suggesting participants feel less able to control aspects of their stressful environment. The lack of significant results for ‘challenge’ hardiness reinforced previous non-nursing results and concurred with the argument that the present construct of hardiness is weak. Resilience remained relatively high and stable. Given the breadth of stressors and the stressful nature of transition (result of this research), it is difficult to surmise that the participants did not face adversity, the prerequisite for developing resilience. Therefore, resilience may have more trait-like qualities than previously thought.

‘Support in action for the future’ pragmatically incorporating recommendations from the participants based on their experiences reveals that whilst some educational support from the HEI would be helpful, what newly qualified nurses need is improved, deliberate, structured support and clinical knowledge development within their job location and their employing organisation. Preceptorship may remain part of what is offered immediately post-qualifying, but it needs to be overhauled. In the next and concluding chapter, the research questions that led to this investigation are directly answered and recommendations for future practice and research are offered.

Chapter 9 - Conclusion

9.0 Introduction

The term ‘transition’ denotes a process or a passage of developmental change and adaptation (Kralik, Visentin and van Loon, 2006). Despite the implication that a period of time is intrinsically involved, longitudinal transition investigations are rare within the nursing and allied health literature (Moriarty *et al.* 2011). The current study did use a longitudinal, mixed methods approach to investigate the transition of newly qualified nurses over their first twelve months post-qualifying through exploring what their stressors and stress experiences were, coupled with a variety of potentially mediating factors.

Much of the existing literature on newly qualified nurses focuses on their transition experience and pays superficial attention to the stress within their experiences. It is predominantly international, thus differences in nurse education, regulations for progressing to a full licence to practice as a qualified nurse, healthcare provider systems and programmes of orientation and support immediately post-qualifying make it difficult to apply outcomes to UK newly qualified nurses. Even within the existing, limited amount of literature pertaining to UK newly qualified nurses, applicability to contemporary newly qualified nurses may be compromised by changes that have occurred in the demographics of students recruited to nurse education, changes to nurse education curricula and changes to UK healthcare provision. These reasons, amongst many others, made the need for this current research on newly qualified nurses necessary.

The previous chapter discussed the major results from this study drawing from published literature to situate the results within what was previously known as well as the theories that informed the study from the outset. This final chapter draws from all the new knowledge that has been generated to specifically answer the original research questions. Thereafter, the strengths and limitations of the present study are discussed, before a concluding synthesis regarding this research. The chapter and thesis culminates with recommendations for nurse education, healthcare organisations and future research.

9.1 Answering the research questions

From a critical review of the available literature at the time of the inception of this investigation, four research questions were created (see Section 3.8), the answers to which would constitute new and original knowledge. The research questions are directly answered in this section.

What are the aspects of transition related to work stressors experienced by newly qualified adult branch nurses during the first twelve months post-qualifying?

The model that illustrated the theoretical background to this research (see Figure 2.1) suggested that the process of transition led to professionalisation, socialisation, competence and adaptation in newly qualified nurses. The findings of this research suggest that it is factors involved in professionalisation and socialisation that lead to adaptation as the outcome of transition. The results suggest that many factors within professionalisation are highly developed in newly qualified nurses at the point of qualification. Newly qualified nurses have a well-established conceptualisation of the high ideals they want to apply to their nursing practice that mirror the expectations of the NMC. However, they have to fight to apply them in the face of a lack of team support and incivility. Also, professionalisation for newly qualified nurses includes a clear appreciation of their knowledge and skills deficits from the point of qualification and a fierce determination to address the deficits in order to deliver high standard, highly competent patient care. Yet, as with the application of their high ideals, they are not always actively supported in meeting their self-assessed developmental needs.

Socialisation represents the aspect of transition that requires the most developmental attention during transition. Socialisation during pre-registration education is in some ways inevitably limited. This is because fully performing the role of a qualified nurse and at the same time fitting into a pre-existing team in this new role can only be achieved once qualified status is attained. The behaviour of team members is a crucial factor in the feelings associated with evolving socialisation. The 'good' team with an inspirational, supportive manager is facilitative of this personal development.

Feeling isolated and alone within the team is psychologically and developmentally detrimental.

Ultimately, it is proposed that professionalisation and socialisation lead to adaptation, as adaptation, the conclusion of transition, is characterised by feeling more settled and comfortable with their new role and status as well as experiencing stabilisation in their fluctuating self-confidence. Adaptation means newly qualified nurses have acquired enough skills and knowledge to feel competent to deliver the high standards of patient care that have always been a motivational driver and can perform within their team in a way that they perceive as useful and valuable.

Overall, the results of this study provide evidence that the process of professionalisation and socialisation leading to adaptation, the process of newly qualified nurse transition, takes approximately twelve months to navigate, with the most unsettled time occurring within the initial months to six months post-qualifying. However, the process is tempestuous and stressful. Consequently, from this research, transition and initiatives to support newly qualified nurses during transition should not be undertaken without overt appreciation of the stressors newly qualified nurses encounter. Newly qualified nurse transition and work-related stressors are entwined experiences.

What are the work-related stressors experienced by newly qualified adult branch nurses during the first twelve months post-qualifying?

Newly qualified nurses reported a broad range of occasionally occurring stressors. This theoretically equates to their primary cognitive appraisal of their workplace environment. 'Workload' was the most frequently occurring reported stressor at the point of qualification, six months and twelve months post-qualifying. Qualitative analysis determined the reasons for why 'workload' was a stressor: an inadequate number of staff per shift resulting in an inappropriate skill mix and having to take charge of a shift while still navigating aspects of their transition, trying to complete all nursing tasks within the duration of the shift and having self-developed strategies for completing work disrupted or interrupted. The ramifications of an unmanageable workload were essentially self-destructive coping strategies: working beyond the end of the shift and not taking adequate breaks during the shift.

Workload and stress from encountering incivility represented factors related to the job. Additionally, factors related to the person were also identified from the analysis. Some of the sources of personal stress emanated from within the person, such as a fear of making an error or harming a patient. However, some resonated with aspects of their transition: stress from trying to uphold their high ideals and attend to their learning and developmental needs.

A unique outcome of this research was the identification at different time points that some newly qualified nurses had personal assets that were associated with a reduction in the frequency of reported stressors. Assets at the point of qualification were increased age, having healthcare experience from employment prior to commencing their nurse education and qualifying with a Diploma level nursing qualification. None of these were associated at six months post-qualifying, but previous healthcare experience was significantly associated again at twelve months post-qualifying. Furthermore, having previous healthcare experience had a significant association with reporting 'workload' as a less frequently occurring source of stress. This has important implications in the recruitment of nursing students. When considered in conjunction with newly qualified nurses articulating high ideals as an aspect of their transition, healthcare experience prior to commencing nurse education may be more essential in managing the most frequently reported source of work-related stress thereby reducing the risk of turnover, than it is speculated to be in fostering a caring and compassionate nursing workforce.

What coping strategies and social support do newly qualified adult branch nurses use to manage work-related stress during the first twelve months post-qualifying?

The coping strategies that were most-used by newly qualified nurses during the first twelve months post-qualifying were a mixture of problem-focused and emotion-focused strategies. The least-used strategies were those that have been categorised as avoidance strategies such as substance use and denial. The most verbally reported coping strategy was talking to others, thus it was the most consciously used coping strategy. In direct relation to the total frequency of reported stressors, there was a significant increase in the use of strategies that have a greater potential to be maladaptive at the point of qualification and at six months post-qualifying. This may

potentially have a significant bearing on the long-term mental/physical health of some newly qualified nurses as well as their ability to be a functioning part of the nursing workforce. The coping strategies that were most-used either reflected the problem-solving nature of nursing work or involved reappraising a situation in order to cope with the feelings of stress it had caused, rather than directly addressing the source of stress. This reappraisal strategy was often used to cope with incivility, but ultimately, it will not serve to eradicate incivility from the workplace.

As a coping resource, the structural social support used by newly qualified nurses, their social network, contained on average four to five different categories of people to assist with work-related stressors. The most-used members were nursing colleagues, friends and husband/wife/partner. Their use may have been because they were readily accessible, trusted or there was a shared understanding of the stressful nature of nursing work. The newly qualified nurses had a high and diverse range of functional social support, the different reasons for utilising the social network, though functional social support was not significantly associated with the total frequency of reported stressors. This outcome raises questions as to how important social support is in the direct personal management of work-related stressors. However, 'support in action' in the workplace came from a 'good' team with inspirational leadership from the manager. This reflects the high ideals newly qualified nurses hold and positively facilitates transition-related socialisation and professional role modelling.

To what extent do work-related stressors, coping strategies, social support, hardiness and resilience change in newly qualified adult branch nurses during their first twelve months post-qualifying?

Considering the sources of stress and each potential stress-mediating factor separately, the total frequency of reported stressors at each time point over the first twelve months post-qualifying did not significantly change implying relative stability. However, the importance of analysing specific sources of stress was demonstrated because two individual sources of stress did significantly alter. 'Death and dying' significantly diminished between the point of qualification and six months post-qualifying and then rose significantly again at twelve months post-qualifying. 'Workload' significantly increased between six months and twelve

months post-qualifying. Both of these outcomes may reflect increased work expectations after the newly qualified nurses has been in post six months and for some have completed preceptorship.

None of the fifteen different types of coping strategy measured significantly changed between each time point over the first twelve months post-qualifying. The implication of this outcome was that coping may be a process where each situation is cognitively appraised and a suitable coping strategy selected for use, but for newly qualified nurses, coping is dispositional or a trait. In other words, newly qualified nurses each had a repertoire of coping strategies and consistently applied them in the workplace, irrespective of their cognitive primary appraisal. Functional social support also did not significantly change between time points. This implied relative stability in the availability of different types of support that are needed as a coping resource.

Newly qualified nurses were found to be moderately hardy and relatively high in resilience. Total hardiness and ‘control’ hardiness significantly decreased at each time point over the first twelve months post-qualifying. This outcome implies a diminishing perception of control over the work environment during transition and calls into question the current theoretical position that hardiness is a relatively stable trait. Resilience did not significantly change between each time point over the first twelve months post-qualifying. The outcome was at odds with the theory of resilience that suggests resilience alters with adaptation in the face of experiencing adversity.

9.2 Strengths and limitations of this research

A key strength of this exploration of transition, stress and stress-mediating factors in newly qualified nurses has come from the mixed methods approach that was utilised in order to determine ‘what’ and ‘why’ to create the most comprehensive understanding (Woolley, 2009). Furthermore, by giving the participants the opportunity to talk, the pragmatic epistemology of “*practical consequences*” of knowing (James, 1997a/1907, p. 94) is evident in the recommendations from this

study that are as much underpinned by what the participants think helped them at the time and what they think will help the next generation of newly qualified nurses, as they are by all the results of this research. This adds to the credibility of the suggested recommendations.

The repeated measures component of the method using one sample has enabled differences between time points to be determined with less risk of sampling error (Scott and Mazhindu, 2014). The longitudinal design also reflects the theoretical position that it is a requirement because transition is a process over time (Higgins, Spencer and Kane, 2010), as is the cognitive appraisal of stress. Furthermore, the quantitative component to the design using five established questionnaires for nursing stress, coping, social support, hardiness and resilience has produced new knowledge on the internal consistency reliability (Cronbach's coefficient alpha) for each questionnaire using a large sample of newly qualified nurses.

There were some limitations within this study that relate to the recruitment and retention strategy, the size of the sample in some statistical tests, the quantitative and qualitative data collection instruments, and the generalisability and transferability of the results and recommendations to all UK newly qualified nurses. Detailed attention and planning was given to the recruitment and retention strategy (see Section 4.6) because it is crucial in longitudinal research (Robinson and Marsland, 1994). However, some unanticipated situations occurred that compromised recruitment and retention.

It was not possible to determine how many nursing students actually attended the recruitment sessions. Attendance was deliberately voluntary and fluid throughout the session. The recruitment strategy utilised was regarded as successful as $n=288$ nursing students enlisted, 49% of all that were eligible to be recruited. Nursing students were recruited and Phase 1 data were collected precisely at the point of becoming a newly qualified nurse, another strength of the method. However, nursing students were known to be absent from the recruitment sessions because they were meeting with other staff and/or attending to paperwork related to the administrative completion of their programme. Some nursing students were also known to be absent in Cohort C because they were attending job interviews at an NHS Trust

hospital. These factors meant that nursing students were not in the recruitment session to hear the presentation and be inspired to participate. There was no alternative offered at the time to facilitate participation if the nursing student was not in the recruitment session.

An issue that was known to affect retention was problems with emails. While the vast majority of participants indicated that they wanted to receive the package of questionnaires via email, for some participants their email address did not work. On a few occasions the Chief Investigator was able to telephone the participant and correct the email address, but problems with email addresses remained a consistent problem. In addition, a few participants contacted the Chief Investigator to say that they had found the email with the package of questionnaires attached in their 'junk mail' box and had only found it by chance. It is entirely possible that this affected other participants and therefore they never knowingly received the package of questionnaires that were sent to them. It may also have been the case that some participants had concerns about the safety and confidentiality of their electronic responses, which may have led to them dropping out of the research (van Gelder, Bretveld and Roeleveld, 2010).

The recruitment strategy aim was to recruit as many participants as possible to Phase 1 from each of the four cohorts of nursing students eligible to participate. Some of the statistical tests that were subsequently performed required complete datasets at all three phases. The outcome was that the sample size was notably small in some of these tests. This is a limitation in the results produced in these particular analyses as it increases the risk of attrition bias, as discussed in Section 4.9.1, in that internal and external validity may be reduced as a consequence (Miller and Hollist, 2007). However, non-responders at Phase 2 and/or Phase 3 and those with incomplete datasets were analysed by comparing their responses at Phase 1 to the Phase 1 responses of participants that did continue to participate and provide complete datasets. There was no significant difference between groups when these comparative analyses were performed. These results are presented throughout Chapter 6 where appropriate because of this limitation.

There were some possible limitations in this research that pertained to the questionnaires that were used. The questionnaires were all self-report scales. There are inherent weaknesses in self-report scales; for example, each questionnaire contained in the package of questionnaires was replicated exactly as it had been originally published to maximise validity (Juniper, 2009). This meant the American-English language could not be amended for the English sample in this research, which may have compromised understanding, though participants in the pilot study did not highlight this as an issue (see Section 4.5). It also meant that participants could not be overtly guided to complete each questionnaire thinking of their workplace and not their life outside of work. The questionnaires were deliberately ordered to try and create a context effect to address this limitation (see Section 4.4.1.6). There were also possible limitations related to the location and circumstances in which the self-report scales were completed (see Section 4.4).

Selecting the most appropriate questionnaires was given specific attention in this research (see Sections 4.2.1 and 4.4.1). The NSS had been used with newly qualified nurses before, but it is a measure of qualified nurse stress. It is possible that the NSS may not have represented all the sources of stress for newly qualified nurses. There was also a possible weakness with the DRS15-R used to measure hardiness. There were no significant results in this research that pertained to ‘challenge’ hardiness. The inclusion of ‘challenge’ hardiness within the construct of hardiness has been identified before as a possible construct inaccuracy (Funk, 1992). Additionally, the results of Cronbach's coefficient alpha for each of the three subscales for the DRS15-R using Phase 1 data were <0.70 , thus the internal consistency reliability of the DRS15-R was below acceptable (Field, 2009). Therefore, the questionnaires used in this research may be a limitation.

As one of the pre-determined interview questions, the participants were asked what had caused them stress at work. When people are asked about stress it can be interpreted as a negative situation, but stress can be a positive occurrence known as eustress. This has been investigated in qualified nurses and nursing students as uplifts (Gibbons, Dempster and Mountray, 2008, Lim, Hepworth and Bogossian, 2011). An additional question about eustress or their positive experiences of stress could have been included in the interview schedule for Phase 4 participants, which

may have produced better representation of the eustress to distress continuum (McVicar, 2003).

Finally, the management of the healthcare service in the UK is predominantly devolved to the four constituent countries of the UK. Consequently, while the NMC regulates all qualified nurses in the UK, responsibility for the implementation of preceptorship for newly qualified nurses sits with each country hence, there are notable differences (McCusker, 2013). In England, preceptorship is guided by the document, *'Preceptorship framework for newly registered nurses, midwives and allied health professionals'* (Department of Health, 2010). In Wales, a period of consolidation is recommended in the document: *'Post registration career framework'* (Welsh Assembly Government, 2009), though each of the Welsh Health Boards has responsibility for how this is implemented (McCusker, 2013; Jones, Benbow and Gidman, 2014). In Scotland, Flying Start NHS[®] is used, which is a web-based structured learning package that newly qualified nurses voluntarily register to access (Jamieson, Harris and Hall, 2012). In Northern Ireland, preceptorship is directed by the Northern Ireland Practice and Education Council using the document, *'Preceptorship framework for nursing, midwifery and specialist community public health nursing'* as guidance (Northern Ireland Practice and Education Council, 2013). Consequently, as the sample used in the current study were recruited in the South East of England, generalisability and transferability of the results and recommendations to English newly qualified nurses can be considered. However, the potentially different experiences of preceptorship in Wales, Scotland and Northern Ireland may be an important consideration in the generalisability and transferability of the results and recommendations to newly qualified nurses elsewhere.

9.3 Concluding synthesis

This investigation of contemporary newly qualified nurses has enhanced the understanding of the period of transition all newly qualified nurses will inevitably embark upon on first entering the workforce. Through a unique, longitudinal, mixed methods study, transition has been shown to involve enhancing well-established

elements of professionalisation and enhancing limited socialisation leading to evolving adaptation to the work environment. However, it has also been demonstrated that newly qualified nurses encounter multiple work-related stressors that are intrinsically entwined with the process of transition. This research has identified many of these stressors over the first twelve months post-qualifying together with mediating factors associated with an increase or decrease in the frequency of reported stressors at specific time points. The pragmatic practical consequences of this study lays not only in the new understanding of the reality for newly qualified nurses, but in the ‘solutions’ that can be offered as empirically justified recommendations for future education, practice and research.

9.4 Recommendations from this research

The recommendations that hail from the outcomes of this study, summarised in Table 9.1, are relevant to the UK HEIs that deliver pre-registration nurse education programmes in adult nursing and healthcare provider organisations that employ newly qualified nurses, particularly in England. Recommendations for future research are also suggested.

9.4.1 UK pre-registration nurse education

The results of this research showed that participants felt there was nothing more their HEI could have done to prepare them for the ‘real world’ of nursing. However, HEIs should always continue to consider innovative ways of enhancing the preparation of nursing students leading up to their graduation from their nurse education and entry into the profession and workforce.

A recommendation that was offered by participants and is also supported within the results of this research is to improve the education of nursing students about what to expect when they first start working as a qualified nurse: how they might feel, what they might experience, how they can develop strategies to cope with their work together with who and how they can access support. It is therefore recommended that the HEI provides a session for nursing students who are close to completing their

nurse education where they can meet, ask questions and learn from nurses that are approximately twelve months-post qualifying. The HEI could also consider providing more education on newly qualified nurse transition, stress management, how to address workplace incivility and enhancing hardiness and resilience. Collectively, these new education initiatives would enhance transition preparation.

Table 9.1 Recommendations from the outcomes of this research

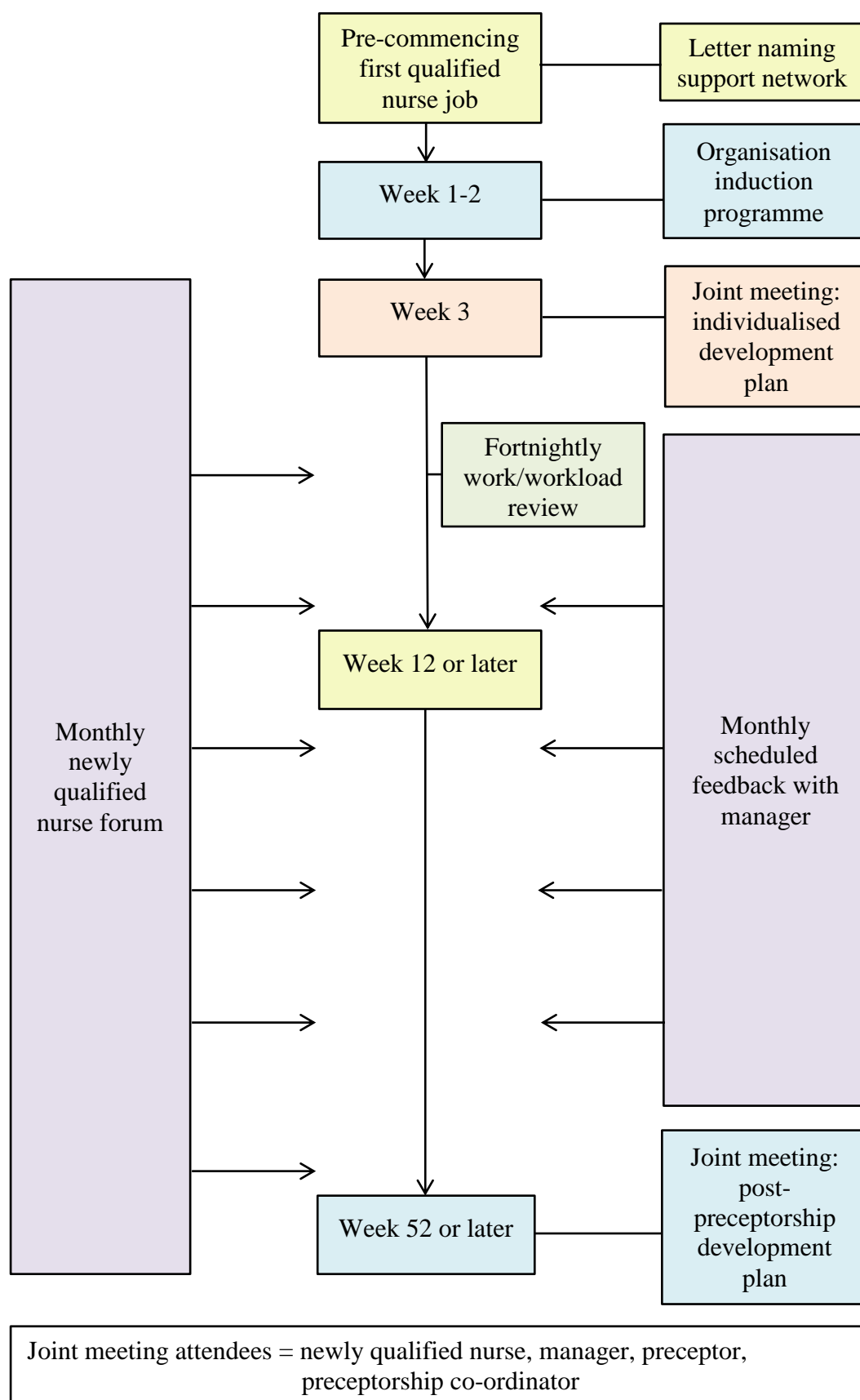
	Recommendation
UK pre-registration nurse education	Transition preparation: session for nursing students at the end of their nurse education from twelve months post-qualifying newly qualified nurses and additional education on newly qualified nurse transition, stress management, how to address workplace incivility and enhancing hardiness and resilience
	Final management placement pre-registration is in the preferred first qualified nurse job location
Healthcare provider organisations	Implement the proposed model of preceptorship
	Work/workload management during transition including graduated increase in workload, no floatation/internal rotation, not placed in charge of a ward
	Implementation of a newly qualified nurse forum to include formal monthly meetings for clinical teaching and peer support
	Education initiatives utilising the identified attributes of the ‘good’ team and the inspirational manager to promote teamwork, team civility and leadership
	Proactive management of workplace incivility at an individual, team and organisational level
Future research	Repetition of the present research with additional data collection at eighteen and twenty-four months post-qualifying
	Robust evaluation of the proposed model of preceptorship
	Robust evaluation of any preceptorship initiative
	Examination of the importance and benefit of healthcare experience prior to commencing nurse education
	Further exploration of the ‘disappointed’ idealist
	Hardiness and resilience: construct exploration, further development of instruments to quantitatively measure and robust evaluation of enhancement initiatives

Another recommendation that was offered by participants and is supported within the results of the present study is that the nursing student's final management placement before they complete their nurse education should be in a job location where they would like their first qualified nursing job. This would require new ways of working between the HEI and potential employer. It would also require the nursing team they are to join to be suitably prepared by the employer, so that the newly qualified nurse is viewed as having new developmental and support needs.

9.4.2 Healthcare provider organisations

From the results, the experience of preceptorship was variable. Positively appraised examples were when preceptorship was co-ordinated by a specific staff member such as a PDN. It also incorporated regular, planned feedback as well as meaningful assessment that evidenced development and achievement and directly involved the manager. Additionally, the results highlighted the commitment participants had to addressing their learning and development needs during and after preceptorship and that the duration of transition was likely to be at least twelve months. Additionally, alongside the current interpretation of preceptorship as illustrated by the participants (allocation of a preceptor and completing assessment documents), the results from this research identified: being informed of support arrangements pre-employment such as naming the allocated preceptor, attending an organisation induction that met the needs of a newly qualified nurse and dovetailed into personal development during preceptorship, a graduated increase in work/workload that included consideration of supernumerary status, nights and weekend shifts and participation in an organisation-run newly qualified nurse forum. All these factors are brought together in a new model of preceptorship (Figure 9.1).

Figure 9.1 Model of preceptorship



Preceptorship should be mandatory (Whitehead and Holmes, 2011) and could be a more overt requirement of the NMC. Organisations should innovatively consider how they support the learning and developmental needs of newly qualified nurses such as implementing the model of preceptorship proposed, thus ensuring they are maximising the potential of this subgroup of the nursing workforce for a period of time that spans their entire transition. Additionally, it should be fully embraced by the organisation's management, which should include the education and protected time needs of the preceptor who is supporting the newly qualified nurse (Whitehead *et al.* 2013). Overall, even though it was suggested for work-based learning, the enabling factors identified by Manley, Titchen and Hardy (2009) apply to supporting the learning and development of newly qualified nurses in that there should be an organisation-wide learning philosophy and a supportive organisation-wide infrastructure.

There are a collection of results from this research reflecting 'organisational sabotages' that highlight areas where improvements by an employing organisation might enhance the experience of newly qualified nurses. A major source of stress for the participants was their workload. Organisations should give consideration to gradually increasing the workload of newly qualified nurses in the initial months post-qualifying, which has been factored into the model of preceptorship proposed (see Figure 9.1). Newly qualified nurses should not be placed in charge of a ward or floated/rotated away from their job location as the results of this research showed a range of negative outcomes for participants. The newly qualified nurse should be directly guided by experienced nurses to manage their workload, so that they are not working beyond the end of their shift or missing breaks during their shift. Given that for many in the present research transition lasted twelve months with the most unsettled time still evident at six months post-qualifying direct workload management guidance needs to be ongoing throughout transition.

The results identified multiple attributes of the 'good' team and the inspirational manager of such a team. These attributes were influential in positively affecting newly qualified nurse transition and stress experiences as well as aspirational in role modelling excellence in teamwork and professional conduct for these fledgling nurses. These attributes also mirrored those required for ongoing registered

professional nursing practice (NMC, 2015) and the leadership skills required in “*ward nurse managers*” as recommended by the Mid Staffordshire public inquiry (Parliament. House of Commons, 2013, p. 106). Furthermore, this collection of results was in contrast to the acts of incivility reported by participants.

As a short term strategy, newly qualified nurses should be assisted to develop better skills to manage incivility they may receive including receiving guidance on an organisation’s reporting and support services. Likewise, organisations should consider initiatives that help develop and maintain an individual’s adaptive coping strategies when faced with work-related stressors, as well as aim to reduce and replace coping strategies where the coping outcome is undesirable. However, as a long term strategy, organisations need to give further consideration to staff-on-staff behaviour and how team-civility can be improved (Hutchinson *et al.* 2006; D’ambra and Andrews, 2014; Freeling and Parker, 2015) as the latter has been identified as a significant predictor of a successful transition (Phillips *et al.* 2013). The attributes identified in the current study could be utilised in education initiatives within an organisation as well as externally delivered to enhance the way nurses function as individuals and as a team, how they collectively support and facilitate newly qualified nurses in their transition and in the development of leadership skills for current and prospective team managers.

An outcome of this study identified feelings of isolation as a personal barrier during transition and how newly qualified nurses used each other for support. As suggested by participants and supported in the literature, organisations could consider running a monthly forum for newly qualified nurses. This would promote peer sharing of experiences and information as well as be a dedicated time for teaching. It would also enable the organisation to gain feedback from newly qualified nurses on their experiences to enhance the support and retention of newly qualified nurses within the organisation. Additionally, organisations could explore the use of social media to support newly qualified nurses, with senior nurses acting as easily-accessible, experienced sources of advice and support.

9.4.3 Future research

This research has shown that newly qualified nurses start to feel more settled at twelve months post-qualifying. Future research could repeat the current study, but continue to collect data at eighteen months and two years post-qualification. This will provide even greater longitudinal insight into the change and adaptation associated with transition, stress and potentially mediating factors for newly qualified nurses. Additionally, such research would be able to identify the post-preceptorship support and developmental needs of nurses that are still relatively junior and inexperienced.

Further to the recommendation in Section 9.4.2 regarding mandatory, planned preceptorship to span twelve months of newly qualified nurse transition, suitably sized, robustly evaluated research is needed to determine the optimum composition of a programme of support and development. Evaluation should also include cost, retention and turnover outcomes for the organisation as currently the research in this area is poor (Edwards *et al.* 2011).

The Mid Staffordshire public inquiry (Parliament. House of Commons, 2013) recommended healthcare assistant-type experience for nursing students to ensure care and compassion in qualified nurses. The results of the present study suggest newly qualified nurses have this as their ‘high ideals’ irrespective of whether they had healthcare experience prior to commencing their nurse education. Additionally, those with such experience reported less frequently occurring total stress and ‘workload’ as a source of stress, as well as an increased use of more adaptive strategies to cope with work-related stressors. Therefore, it is recommended that further research examines the importance and benefit of previous healthcare experience as a more robust basis for the significant change in nursing student recruitment and pre-registration education such a pre-requisite would create.

An outcome of the research was the suggestion that a new, fourth kind of idealist among newly qualified nurses exists: the ‘disappointed idealist’. Further research could be undertaken to determine how the ‘disappointed idealist’ develops; for example, do they remain a ‘disappointed idealist’, progress to being a ‘crushed

idealist’ or somehow return to being a ‘sustained idealist’? The research outcome would be relevant to standards of professionalism and patient care as well as newly qualified nurse retention in the workforce.

Hardiness and resilience in nurses let alone newly qualified nurses has rarely been investigated. The outcome of the present study calls into question the theoretical construct of hardiness and resilience, though it may also have occurred due to weaknesses in the validity and reliability of the instruments used. The construct and measurement of hardiness and resilience would be worthy of further investigation. Similarly, it has been suggested that hardiness and resilience can be enhanced through education and skills training. Rigorous research to demonstrate actual benefit would help in justifying investment in such training.

9.5 Thesis conclusion

This chapter has encapsulated the original contribution to knowledge gained from this large, pragmatic, mixed methods cohort investigation of the stressful nature of newly qualified nurse transition. The new knowledge was used to specifically answer the research questions posed at the outset of this study enhancing the practical and theoretical understanding of newly qualified nurse transition and the positive and negative stress-mediating factors associated with specific time points over the first twelve months post-qualifying.

The notable strengths of the epistemology, methodology and method that enabled this new understanding have been presented. Honesty in acknowledging limitations in the recruitment and retention strategy deployed, sample size in some of the quantitative analyses and potential weaknesses in the quantitative and qualitative data collection instruments is demonstrated.

The ultimate outcome of this study lies not only in the new understanding of the stressful nature of newly qualified nurse transition, but in the recommendations that can be made with robust empirical justification. Recommendations for pre-registration nurse education have been offered that centre on enhancing knowledge

of potential transition-related issues for nursing students close to qualifying and using the final management placement as familiarisation to reduce transition issues post-qualifying. Recommendations for healthcare organisations that employ newly qualified nurses have been presented that focus on implementing preceptorship through the use of a new model, workload and facilitating peer support, as well as addressing workplace incivility drawing from the attributes of a 'good' team and manager. Recommendations for future research reflect the need to rigorously evidence the benefits of preceptorship, hardiness/resilience training and entering nursing with healthcare experience from employment prior to commencing nurse education. Other research recommendations relate to the need to continue to develop the theoretical understanding of hardiness, resilience and the process of transition in newly qualified nurses. The transition experience of newly qualified nurses and the work-related stressors they experience are inter-related, complex and multi-factorial. The recommendations made are intended to enhance the experiences of newly qualified nurses as they are a vital part of the nursing workforce that needs to be retained and nurtured, so they can achieve their full potential and healthcare providers will have nurses who are engaged, professional, committed to high quality patient care and able to cope, no matter what the stressor.

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Appendices

- Appendix 1 Summary of newly qualified nurse qualitative transition research
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Appendix 1 - Summary of newly qualified nurse qualitative transition research referred to in the literature review

The following table presents a summary of the newly qualified nurse qualitative transition research that is referred to in Section 3.2 and its sub-Sections 3.2.1-3.2.6. The research included in the table all produced qualitatively-derived themes capturing aspects of newly qualified nurse transition encompassing: working within an alien culture, functioning within an organisation and a team, adapting to a new role coupled with personal development and managing the conflict with cherished ideals. Kramer (1974), Duchscher (2009) and Price (2009) did not produce qualitatively-derived themes hence they are not evident in this table even though they informed the literature review.

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Kelly (1998), USA	Grounded theory	n= 22 newly qualified baccalaureate nurses, qualified 12-18 months Theoretical sampling	Interview, 1 occasion	Ongoing analysis and interpretation of emerging themes	6 stage process of adaptation all linked to moral integrity: <ul style="list-style-type: none"> • Vulnerability • Getting through the day • Coping with moral distress • Alienation from self • Coping with lost ideals • Integration into new professional self-concept

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Maben and Macleod Clark (1998), UK	Naturalistic inquiry	n= 10 newly qualified nurses, 6-11 months post-qualifying Convenience sample	Interview, 1 occasion	Constant comparative analysis	<p>5 themes:</p> <ul style="list-style-type: none"> • The emotional highs and lows (<i>Sub-themes</i>: The lows: Role difficulties and problems encountered, Stigma and negative staff attitudes, Resistance to change.) (<i>Sub-themes</i>: The highs: Satisfaction and fulfilment, Valued by colleagues.) • New responsibilities and support (<i>Sub-themes</i>: Getting to grips with the staff nurse role, Initial skills deficit) • Confidence: a contradiction – feeling confident vs. feeling like a ‘lemon’ • You’re on your own: responsibility and accountability • Preceptorship and support: myths and realities

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Duchscher (2001), Canada	Phenomenology	n= 5 newly qualified nurses aged 23-25 years Purposive sample	Interview, 2 occasions (within 2 months of commencing job and 6 months later), reflective journal for 6 months	Continuous comparative thematic analysis	3 themes: <ul style="list-style-type: none"> • Doing nursing (<i>Sub-themes</i>: Dependency on others, Fear of physicians, Self-absorption, Leaving the nest, The unwelcome wagon, Focus on doing) • The meaning of nursing (<i>Sub-themes</i>: Comfort with fallibility, Self-awareness and trust, Patient-centred caring) • Being a nurse (<i>Sub-themes</i>: Puppet off a string, Critical thinking, Professional maturation, Professional relativity)

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Ross and Clifford (2002), UK	None	Phase 1: n= 19 nursing students (3 months before qualifying), from 1 cohort in 1 HEI, Advanced DipHE Phase 2: n= 4 (pre-qualifying) Phase 3: n= 13 (4 months post-qualifying) Convenience sample	Phase 1: questionnaire, Phase 2: interview, 1 occasion Phase 3: questionnaire	Statistical analysis of quantitative data, comparative analysis of open-ended questions and interview data	Themes not explicitly presented, but results focused on: <ul style="list-style-type: none"> • Pre-registration final year theory and practice preparation • Post-registration preceptorship
Ellerton and Gregor (2003), Canada	Descriptive	n= 11 newly qualified nurses, “ <i>within 3 months of first employment</i> ”, qualified with a BSc Nursing Convenience sample	Interview, 1 occasion, recalling events from 1 recent shift	Not specified	1 theme: <ul style="list-style-type: none"> • Learning the job (<i>Sub-themes</i>: Challenges to competent practice, Approaches to the challenges of the work)

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Casey <i>et al.</i> (2004), USA	Descriptive, comparative	Phase 1: n= 270 newly qualified nurses from 6 hospitals Phase 2: n= unspecified, newly qualified nurses from 1 of these hospitals Sampling method not specified	Phase 1: questionnaire, Phase 2: revised questionnaire on entering a residency programme	Statistical analysis of quantitative data, thematic analysis of open-ended questions	6 themes to the qualitative data: <ul style="list-style-type: none"> • Lack of confidence in skill performance with deficits in critical thinking and clinical knowledge • Relationships with peers and preceptors • Struggles with dependence on others yet wanting to be independent practitioners • Frustrations with the work environment • Organisation and priority-setting skills • Communication with physicians

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Maben, Latter and Macleod Clark (2006), UK	Naturalistic inquiry	<p>Phase 1: n= 72 nursing students, point of qualifying with a DipHE, from 3 HEIs</p> <p>Phase 2: n= 26, 4-6 months post-qualifying</p> <p>Phase 3: n= 26, 11-15 months post-qualifying</p> <p>Phase 1: purposive sample</p> <p>Phases 2 and 3: theoretical sampling within purposive sub-sample</p>	<p>Phase 1: questionnaire</p> <p>Phases 2 and 3: interview</p>	<p>Phase 1: content analysis</p> <p>Phases 2 and 3: constant comparative analysis</p>	<p>Nursing students qualified with 3 categories of ideals:</p> <ul style="list-style-type: none"> • Patient-centred holistic care • High quality care • Theoretical knowledge and research evidenced care <p>Ideals were thwarted from being actioned by:</p> <ul style="list-style-type: none"> • Organisational sabotaging factors • Professional sabotaging factors

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Clark and Holmes (2007), UK	None	<p>From 3 NHS Trusts, n= 34 newly qualified nurses on a development programme, n= 9 newly qualified nurses in substantive posts, n= 55 experienced nurses, n= 11 PDNs, n= 5 ward managers</p> <p>Sampling method not specified.</p>	Focus groups and individual interviews	Content analysis	<p>7 themes:</p> <ul style="list-style-type: none"> • Ready for practice? • A question of confidence • Different model of staff development • Staff nurse development programme • Core and specialist skills • Competence versus competencies • The role of preceptorship

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Maben, Latter and Macleod Clark (2007), UK	Interpretive	<p>Phase 1: n= 72 nursing students, point of qualifying with a DipHE, from 3 HEIs</p> <p>Phase 2: n= 26, 4-6 months post-qualifying</p> <p>Phase 3: n= 26, 11-15 months post-qualifying</p> <p>Phase 1: purposive sample</p> <p>Phases 2 and 3: theoretical sampling within purposive sub-sample</p>	<p>Phase 1: questionnaire</p> <p>Phases 2 and 3: interview</p>	<p>Phase 1: content analysis</p> <p>Phases 2 and 3: constant comparative analysis</p>	<p>Nursing students qualified with 3 categories of ideals:</p> <ul style="list-style-type: none"> • Patient-centred holistic care • High quality care • Theoretical knowledge and research evidenced care <p>Constraints on the implementation of ideals:</p> <ul style="list-style-type: none"> • Professional constraints • Organisational constraints (Intensification and routinisation of nursing work, The reality of nursing role activities in practice) <p>Maintenance of ideals held from the point of qualification:</p> <ul style="list-style-type: none"> • Sustained idealists • Compromised idealists • Crushed idealists.

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Mooney (2007), Republic of Ireland	Descriptive, exploratory study using grounded theory	n= 10 newly qualified nurses, 6-10 months post-qualifying from one hospital Purposive sample	Interview, 1 occasion	Content analysis	2 themes: <ul style="list-style-type: none"> • Learning the ropes (<i>Sub-themes</i>: Learning on the edge, Feeling like a shadow) • The metamorphosis (<i>Sub-themes</i>: Becoming visible, A new awakening)
O'Shea and Kelly (2007), Republic of Ireland	Hermeneutic phenomenology	n= 10 newly qualified nurses, 6-7 months post-qualifying Purposive sample	Interview, 1 occasion	Colaizzi's framework of content analysis	2 themes: <ul style="list-style-type: none"> • The experience of being qualified: highs and lows • Stressful aspects of the staff nurse role (<i>Sub-themes</i>: Organisational/managerial skills deficit, Clinical skills deficits, The allocation of students, Dealing with new situations)

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Deppoliti (2008), USA	Symbolic interactionism	n= 16 newly qualified nurses, 1-3 years post-qualifying from three hospitals Theoretical sample	n= 1 interviewed on 3 occasions n= 3 interviewed on 2 occasions n= 12 interviewed on 1 occasion Field notes during the interviews	Grounded theory, correspondence with sample on emerging themes	1 theme: <ul style="list-style-type: none"> • Passage points [to developing professional identity] (<i>Sub-themes</i>: Finding a niche, Orientation, The conflict of caring, Taking the licensure examination, Becoming a charge nurse, Moving on)
Duchscher (2008), Canada	Interpretive inquiry	n= 14 newly qualified baccalaureate nurses, 2 major Canadian cities. Sampling method not specified	Interview on 6 occasions (1, 3, 6, 9, 12 and 18 months post-qualifying), 2 focus groups in 1 city	Not specified	3 themes: <ul style="list-style-type: none"> • Doing • Being • Knowing
McKenna and Newton (2008), Australia	Phenomenology	n= 9 newly qualified nurses, qualified 12-18 months and 2-6 months post-graduate programme, 3 hospitals. Sampling method not specified.	Focus groups, 1 occasion	Colaizzi's framework of content analysis	3 themes: <ul style="list-style-type: none"> • Sense of belonging • Independence • Moving on

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Dyess and Sherman (2009), USA	Hermeneutic phenomenology	n= 81 newly qualified nurses, qualified ≤12 months. Sampling method not specified.	Focus groups pre and post 12 months programme for newly qualified nurses	Content analysis	6 themes: <ul style="list-style-type: none"> • Confidence and fear • Less than ideal communication • Experiencing horizontal violence • Perception of professional isolation • Complex units require complex critical decision-making • Contradictory information
Kelly and Ahern (2009), Australia	Husserl's phenomenology	n= 13 nursing students. Sampling method not specified.	Interview, 3 occasions (last semester as a nursing student, 1 month post-qualifying, 6 months post-qualifying)	Thematic analysis	3 themes: <ul style="list-style-type: none"> • This is nursing (<i>Sub-themes</i>: Discovering nursing culture, Language) • Eating their young (<i>Sub-themes</i>: Power games, Hierarchy, 'Bitchiness') • Not really prepared (<i>Sub-themes</i>: Role conflict, Thrown in at the deep end, Double reality shock)

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Romyn <i>et al.</i> (2009), Canada	Descriptive	<p>n= 14 newly qualified nurses, qualified <2 years, n= 133 staff nurses, managers and academic educators</p> <p>n= 5 newly qualified nurses, qualified <2 years, n= 34 staff nurses, managers and academic educators.</p> <p>Sampling method not specified.</p>	<p>Focus groups</p> <p>Faxed/mailed opinions</p>	Content analysis	<p>6 themes:</p> <ul style="list-style-type: none"> • Is there a problem? • Practice readiness: a myth? • Hands-on experience • Meeting urgent needs • Importance of mentoring • Characteristics of new graduates
Andersson and Edberg (2010), Sweden	None	<p>n= 8 newly qualified nurses, qualified 12 months.</p> <p>Sampling method not specified.</p>	Interview, 1 occasion	Content analysis	<p>2 themes:</p> <ul style="list-style-type: none"> • Being a rookie (<i>Sub-themes</i>: Striving for acceptance, Striving for respect) • Becoming a genuine nurse (<i>Sub-themes</i>: Being able to shoulder responsibility, Being able to prioritize tasks, Being able to convey confidence)

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Maxwell <i>et al.</i> (2011), UK	Evaluative	n= 7 community newly qualified nurses, n= 3 intermediate care newly qualified nurses, 8-18 months post-qualifying. Sampling method not specified.	Interview, 1 occasion	Narrative analysis	4 themes: <ul style="list-style-type: none"> • Transition work • New learning • Support and supervision • Identity and integration
Thrysoe <i>et al.</i> (2011), Denmark	Hermeneutic phenomenology	n= 9 nursing students near the end of their nurse education. Sampling method not specified.	Phase 1: 6 th semester of nurse education, practice observation and interview, Phase 2: 5-7 months post-qualification, practice observation and interview	Ricoeur's interpretation theory: naïve reading, structured analysis, critical interpretation	2 themes: <ul style="list-style-type: none"> • Expectations of independency as a newly qualified nurse • Experiences of independency as a newly qualified nurse

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Bisholt (2012a), Sweden	Ethnographic symbolic interactionism	n= 16 recently qualified nurses undergoing 1 year induction programme. Sampling method not specified.	Observation and interview	Continuous thematic analysis	Focussing on the socialisation process: 1 theme: <ul style="list-style-type: none"> Being formed into the profession (<i>Sub-themes</i>: Being accepted in the profession, Being questioned in the profession, Being integrated into a hierarchical organisation, Finding oneself in alienation, Developing through taking responsibility)
Bisholt (2012b), Sweden	Ethnographic symbolic interactionism	n= 16 recently qualified nurses undergoing 1 year induction programme. Sampling method not specified.	Observation and interview	Continuous thematic analysis	Focusing on the learning process: 3 themes: <ul style="list-style-type: none"> Master-apprentice The ability to handle patient situations Organisation of one's own work
Chandler (2012), USA	Appreciative inquiry	n= 36 newly qualified associate degree and baccalaureate nurses, qualified 12 months. Sampling method not specified.	Interview, 1 occasion	Inductive content analysis	3 themes: <ul style="list-style-type: none"> They are there for me There are no stupid questions Nurturing the seeds

Author, year, country	Methodology	Sample and sampling method	Data collection method	Method of data analysis	Results
Riegel (2013), USA	Descriptive	n= 17 newly qualified nurses, born 1980-1989, undertaking or just finished orientation process within an acute care location. Sampling method not specified.	Web-based survey of open-ended questions requiring narrative responses	Colaizzi's framework of content analysis	1 theme: <ul style="list-style-type: none"> Seeking structure (<i>Sub-theme</i>: Needing to assimilate)

Appendix 2 - Permission by the author(s) to use each named published questionnaire in this research

This appendix provides evidence of the written permission received to use each of the five published questionnaires that were incorporated into the package of questionnaires used at Phases 1-3.

1. Nursing Stress Scale, Gray-Toft and Anderson (1981)

July 13, 2009

RE: Nursing Stress Scale

I have enclosed a copy of the Nursing Stress Scale.

You have our permission to use the Nursing Stress Scale in your research. Please cite the original source in the Journal of Behavioral Assessment, Vol. 3, No. 1, 1981, pp. 11-23. Please note that six of the items were dropped on the basis of the factor analysis. I have checked the final 34 items that were included on the enclosed copy of the NSS.

Good luck. I would be most interested in receiving a copy of any of the publications that result from the research. Please call me at (765) XXXXXXXX or send me an email if you have any questions.

Sincerely yours,

James G. Anderson, Ph.D.
Professor of Medical Sociology
Professor of Health Communication
(765) XXXXXXXX
FAX: (765) XXXXXXXX
e-mail: XXXXXXXX @.purdue.edu
web.ics.purdue.edu/ XXXXXXXX

Two extracts from the version of the Nursing Stress Scale sent by Professor Anderson showing the change in scoring from a 0-3 Likert Scale to a 1-4 Likert Scale:

Nurses were given the following directions:

Below is a list of situations that commonly occur on a hospital unit. For each item indicate by means of a check (✓) how *often* on your present unit you have found the situations to be *stressful*. Your responses are strictly confidential.

Four response categories were provided for each item: never (¹~~0~~), occasionally (²~~1~~), frequently (³~~2~~), and very frequently (⁴~~3~~).

NURSING QUESTIONNAIRE I

DIRECTIONS: Below is a list of situations that commonly occur in a hospital unit. For each item indicate by means of a check (✓) how often in your present unit you have found the situation to be stressful. Your responses are strictly confidential.

✓ 1. Breakdown of the computer.

- ___ (1) Never
- ___ (2) Occasionally
- ___ (3) Frequently
- ___ (4) Very frequently

✓ 2. Criticism by a physician.

- ___ (1) Never
- ___ (2) Occasionally
- ___ (3) Frequently
- ___ (4) Very frequently

✓ 3. Performing procedures that patients experience as painful.

- ___ (1) Never
- ___ (2) Occasionally
- ___ (3) Frequently
- ___ (4) Very frequently

✓ 4. Feeling helpless in the case of a patient who fails to improve.

- ___ (1) Never
- ___ (2) Occasionally
- ___ (3) Frequently
- ___ (4) Very frequently

2. COPE questionnaire, Carver, Scheier and Weintraub (1989)

From: Charles S. Carver [XXXXXXXXXX@miami.edu]

Sent: 25 November 2008 14:38

To: Halpin, Yvonne

Subject: Re: COPE questionnaire request

You are welcome to use either COPE or Brief COPE for your research.

What you see is what there is.

Without any knowledge of what your intervention does, I cannot really answer your question about whether the COPE is appropriate to assess change from the intervention, sorry.

--

Charles S. Carver

Department of Psychology, University of Miami

5665 XXXXXXXXX.

XXXXXXXXXX

Phone: 305- XXXXXXXXX

<http://www.psy.miami.edu/faculty/ccarver/>

3. MOS Social Support Survey, Sherbourne and Stewart (1991)

From: Sherbourne, Cathy [XXXXXXXXXX@rand.org]

Sent: 29 June 2009 18:34

To: Halpin, Yvonne

Subject: RE: MOS Social Support Survey request

Yvonne,

Feel free to use the MOS Social Support survey in your research. It should be able to detect change over time. Good luck.

Cathy Sherbourne, Ph.D

Senior Health Policy Analyst

RAND

4. Dispositional Resilience Scale DRS15 – Bartone (1999)

From: Dr. Paul T. Bartone [XXXXXXXXXX@gmail.com]
Sent: 03 December 2008 13:11
To: Halpin, Yvonne
Subject: Here is your DRS Download Link

Hello ~

Thanks for your interest in hardiness-resilience, and the Dispositional Resilience Scale. Please abide by these conditions of use: By downloading any version of the DRS, you agree to use the instrument(s) in complete and unmodified form, including instructions and response format. Also, you agree to use the instrument(s) for research purposes only, and not for commercial or fee-based applications. You agree not to distribute, copy, or use the instrument(s) for any other purpose.

<http://www.hardiness-resilience.com/drs-tools/drs-download/>

Please do not forward this email to anyone or otherwise share this download information with any person, organization, or institution, as download privileges are granted directly through our website and only after agreement to our Terms of Use.

Sincerely,

Dr. Paul T. Bartone
<http://www.hardiness-resilience.com>

5. Connor-Davidson Resilience Scale CD-RISC, Connor and Davidson (2003)

From: Jonathan Davidson [XXXXXXXXXX @mc.duke.edu]

Sent: 27 June 2009 16:22

To: Halpin, Yvonne

Subject: Re: Connor-Davidson Resilience Scale request

Attachments: XXXXXXXXX

Dear Yvonne:

Thank you for your enquiry about the CD-RISC, which we would be pleased to provide for your study. I'm happy to try to answer your questions.

The original 2003 report simply lists the item topics in Table 2, but the complete scale is not provided and it would be impossible to reconstruct the scale merely from the information provided in our publication.

The CD-RISC is sensitive to changes over time or due to treatment. We have some publications which I'm attaching, as one example, but there are a number of others too, reflective of the effects of counselling, CBT or resilience-building treatment programs, which all show statistically significant improvements in diverse populations upto several months after participating in treatment. In our study, we looked at an antidepressant drug vs placebo over 12-24 weeks in a group with PTSD and found that even in that short period of time, the drug produced more strengthening of resilience than did the placebo. In fact, the effect size of this change was greater than the effect on any PTSD symptom measure. We then reported specific improvements on the individual items and that paper is attached too.

If you wish to include CD-RISC in your project, I would ask that you kindly complete and return the two enclosed forms. We do request a one-time fee of \$100 for use of the scale in doctoral dissertation projects. (For other types of research the fee would be \$150), and this is payable to Dr. Kathryn Connor at XXXXXXXXX, Lansdale, PA 19446, USA.

If you have any additional questions, I would be pleased to try and answer them. Meanwhile, we do appreciate your interest in the scale.

With kind regards,

Jonathan Davidson

Dear Yvonne:

Thank you for your interest in the Connor-Davidson Resilience scale (CD-RISC). We are pleased to grant permission to use the CD-RISC in the study you have described under the following terms of agreement:

1. You agree not to use the CD-RISC in research or other work (i) for any commercial purpose or (ii) in research or other work performed for a third party, or provide the scale to a third party. If other off-site collaborators are involved with this project, their use of the scale is restricted to the project, and the signatory of this agreement is responsible for ensuring that all collaborators adhere to the terms of this agreement.
2. You may use the CD-RISC in written format for completion as a hard copy, or through administration over the telephone. The CD-RISC may be administered in a secure electronic format if special arrangements have been made with either Dr Davidson or Dr Connor, in which the scale is protected from unauthorized distribution or the possibility of modification.
3. The scale's content may not be modified, although in some circumstances the formatting may be adapted, with permission of either Dr. Connor or Dr. Davidson, after reviewing any proposed adaptations.
4. Three forms of the scale exist. These forms comprise the original 25 item version and two shorter versions of 10 and 2 items respectively. When reproducing the CD-RISC 25, CD-RISC 10 or CD-RISC 2, whether in English or other language, please include the following wording on all copies:

"All rights reserved. No part of this document may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopying, or by any information storage or retrieval system, without permission in writing from Dr. Davidson at david011@mc.duke.edu. Copyright © 2001, 2003, 2007, 2009 by Kathryn M. Connor MD., and Jonathan R.T. Davidson, MD". If you use the CD-RISC 10, the following notation should appear immediately following the above copyright attribution: "We acknowledge contributions as works made for hire by Laura Campbell-Sills, Ph. D. and Murray Stein MD".

For purposes of standardization of content, scoring, and labeling, we wish to assure users of the scale and interpreters of its results that the designation "CD-RISC 25 (also referred to as the "CD-RISC"), or CD-RISC 10 or CD-RISC 2" refers to the identical instrument and scoring in all cases. This allows comparison of scores across projects and populations.

If you wish to create a non-English language translation or culturally modified version of the CD-RISC, please let us know and we will provide details of the standard procedures.

5. A user fee of \$100 US is payable to Kathryn Connor MD at XXXXXXXX, Lansdale, PA 19446, USA, either via Western Union transfer, or international money order.
6. Complete and return this form via email to XXXXXXXX@mc.duke.edu, along with the attached User's Profile form describing the nature of the project in which you plan to use the CD-RISC.
7. In any publication or report resulting from use of the CD-RISC, you do not publish or partially reproduce the CD-RISC without first securing permission from the authors.

If you agree to the terms of this agreement, please email a signed copy to the above email address, along with the completed User's Profile form. Upon receipt of the signed agreement and of payment, we will email a copy of the scale.

For questions regarding use of the CD-RISC, please contact Jonathan Davidson at XXXXXXXX @mc.duke.edu. We wish you well in pursuing your goals.

Sincerely yours,

Jonathan R. T. Davidson, M.D.
Kathryn M. Connor, M.D.
Agreed to by:

Y. Halpin

16th July 2009

Signature

Date

Ms. Yvonne Halpin

Name (printed) (optional)

Senior Lecturer in Adult Nursing

Title

London South Bank University (London, England, UK)

Organization

Appendix 3 - Phase 1 package of questionnaires

ID. No

The package of questionnaires – Phase 1

Introductory instructions

I would like you to complete this entire package of questionnaires. The package starts with a few questions to discover some key information about you. The rest of the package is related to the key concepts in the research project namely nursing stress, coping, hardiness, resilience and social support. I would like you to answer all questions, but if there is a question that you do not understand or would prefer not to answer, simply leave the question out and move onto the next question. Please do not hesitate to contact me if you have any questions or concerns.

My sincere thanks for participating in my research.

Yvonne Halpin (Chief Investigator)

Faculty of Health and Social Care

Email: **XXXXXXXXX**.ac.uk

LSBU **XXXXXXXXX** Campus, Room 8

Direct Line: 0207 **XXXXXXXXX**

General Information Questionnaire

Where indicated please put an 'x' in the response that applies to you.

Name	First Name:	Surname:
Correspondence Address		
Phone number	Home:	Mobile:
Email address		
Gender:	Male <input type="checkbox"/>	Female <input type="checkbox"/>
Age:		

Current cohort:
Cohort you started your course with:
Course e.g. DipHE Nursing <input type="checkbox"/> Adv DipHE Nursing <input type="checkbox"/> BSc Nursing <input type="checkbox"/> BSc (Hons) Nursing <input type="checkbox"/>
Campus e.g. WX/HW <input type="checkbox"/> SWK <input type="checkbox"/>
Were you employed in a health care setting prior to commencing your course? No <input type="checkbox"/> Yes <input type="checkbox"/> If you answered 'Yes' to this question: What job did you do? How long in total were you employed in a health care setting prior to commencing your course? _____ years, _____ months

Nursing Stress Scale

Below is a list of situations that commonly occur in a hospital unit. For each item indicate by means of a check (✓) how often in your present unit you have found the situation to be stressful. Your responses are strictly confidential.

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
1	Breakdown of the computer.				
2	Criticism by a physician.				
3	Performing procedures that patients experience as painful.				
4	Feeling helpless in the case of a patient who fails to improve.				
5	Conflict with a supervisor.				

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
6	Listening or talking to a patient about his/her approaching death.				
7	Lack of an opportunity to talk openly with other unit personnel about problems on the unit.				
8	The death of a patient.				
9	Conflict with a physician.				
10	Fear of making a mistake in treating a patient.				
11	Lack of an opportunity to share experiences and feelings with other personnel on the unit.				
12	The death of a patient with whom you developed a close relationship.				
13	Physician not being present when a patient dies.				
14	Disagreement concerning the treatment of a patient.				
15	Feeling inadequately prepared to help with the emotional needs of a patient's family.				
16	Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.				
17	Inadequate information from a physician regarding the medical condition of a patient.				
18	Being asked a question by a patient for which I do not have a satisfactory answer.				
19	Making a decision concerning a patient when the physician is unavailable.				
20	Floating to other units that are short-staffed.				
21	Watching a patient suffer.				

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
22	Difficulty in working with a particular nurse (or nurses) outside the unit.				
23	Feeling inadequately prepared to help with the emotional needs of a patient.				
24	Criticism by a supervisor.				
25	Unpredictable staffing and scheduling.				
26	A physician ordering what appears to be inappropriate treatment for a patient.				
27	Too many non-nursing tasks required, such as clerical work.				
28	Not enough time to provide emotional support to a patient.				
29	Difficulty in working with a particular nurse (or nurses) on the unit.				
30	Not enough time to complete all of my nursing tasks.				
31	A physician not being present in a medical emergency.				
32	Not knowing what a patient or a patient's family ought to be told about the patient's medical condition and its treatment.				
33	Uncertainty regarding the operation and functioning of specialized equipment.				
34	Not enough staff to adequately cover the unit.				

Additional stress –related questions

Please answer each question by putting a cross (x) in a box for the response that applies to you.

1. How stressful have you found your Pre-Registration nurse education?				
Not stressful	Slightly stressful	Moderately stressful	Stressful	Extremely stressful
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

2. How stressful have you found the following issues during your Pre-Registration nurse education?					
	Not stressful (1)	Slightly stressful (2)	Moderately stressful (3)	Stressful (4)	Extremely stressful (5)
a) Gaining new knowledge					
b) Developing new skills					
c) Academic assignments					
d) Financial concerns					
e) Clinical Placement concerns					

3. Are there any other issues that you have found stressful during your Pre-Registration nurse education that are not listed in Question 2?
--

Dispositional Resilience Scale (DRS15 –R) - Hardiness

Instructions: Below are statements about life that people often feel differently about. Please show how much you think about each one is true. Give your own honest opinions... There are no right or wrong answers.

		not at all true	a little true	quite true	completely true
1	Most of my life gets spent doing things that are meaningful.				
2	Planning ahead can help avoid most future problems.				
3	I don't like to make changes in my regular activities.				
4	I feel that my life is somewhat empty of meaning.				
5	Changes in routine are interesting to me.				
6	By working hard you can nearly always achieve your goals.				
7	I really look forward to my work activities.				
8	If I'm working on a difficult task, I know when to ask for help.				
9	I don't think there's much I can do to influence my own future.				
10	Trying your best at work is really worth it in the end.				
11	It bothers me when my daily routine gets interrupted.				
12	Most days, life is really interesting and exciting for me.				
13	I enjoy the challenge when I have to do more than one thing at a time.				
14	I like having a daily schedule that doesn't change very much.				
15	When I make plans I'm certain I can make them work.				

Connor-Davidson Resilience Scale (CD –RISC)

For each item, please mark an “x” in the box below that best indicates how much you agree with the following statements as they apply to you over the last **month**. If a particular situation has not occurred recently, answer according to how you think you would have felt.

		Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
1	I am able to adapt when changes occur.					
2	I have at least one close and secure relationship that helps me when I am stressed.					
3	When there are no clear solutions to my problems, sometimes fate or God can help.					
4	I can deal with whatever comes my way,					
5	Past successes give me confidence in dealing with new challenges and difficulties.					
6	I try to see the humorous side of things when I am faced with problems.					
7	Having to cope with stress can make me stronger.					
8	I tend to bounce back after illness, injury, or other hardships.					
9	Good or bad, I believe that most things happen for a reason.					
10	I give my best effort no matter what the outcome may be.					
11	I believe I can achieve my goals, even if there are obstacles.					
12	Even when things look hopeless, I don't give up.					

		Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
13	During times of stress/crisis, I know where to turn for help.					
14	Under pressure, I stay focused and think clearly.					
15	I prefer to take the lead in solving problems rather than letting others make all the decisions.					
16	I am not easily discouraged by failure.					
17	I think of myself as a strong person when dealing with life's challenges and difficulties.					
18	I can make unpopular or difficult decisions that affect other people, if it is necessary.					
19	I am able to handle unpleasant or painful feelings like sadness, fear and anger.					
20	In dealing with life's problems, sometimes you have to act on a hunch without knowing why.					
21	I have a strong sense of purpose in life.					
22	I feel in control of my life.					
23	I like challenges.					
24	I work to attain my goals no matter what roadblocks I encounter along the way.					
25	I take pride in my achievements.					

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COPE Inventory

I am interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Respond to each of the following items by putting a circle around one number. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU- not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
1	I try to grow as a person as a result of the experience.	1	2	3	4
2	I turn to work or other substitute activities to take my mind off things.	1	2	3	4
3	I get upset and let my emotions out.	1	2	3	4
4	I try to get advice from someone about what to do.	1	2	3	4
5	I concentrate my efforts on doing something about it.	1	2	3	4
6	I say to myself "this isn't real."	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
7	I put my trust in God.	1	2	3	4
8	I laugh about the situation.	1	2	3	4
9	I admit to myself that I can't deal with it, and quit trying.	1	2	3	4
10	I restrain myself from doing anything too quickly.	1	2	3	4
11	I discuss my feelings with someone.	1	2	3	4
12	I use alcohol or drugs to make myself feel better.	1	2	3	4
13	I get used to the idea that it happened.	1	2	3	4
14	I talk to someone to find out more about the situation.	1	2	3	4
15	I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
16	I daydream about things other than this.	1	2	3	4
17	I get upset, and am really aware of it.	1	2	3	4
18	I seek God's help.	1	2	3	4
19	I make a plan of action.	1	2	3	4
20	I make jokes about it.	1	2	3	4
21	I accept that this has happened and that it can't be changed.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
22	I hold off doing anything about it until the situation permits.	1	2	3	4
23	I try to get emotional support from friends or relatives.	1	2	3	4
24	I just give up trying to reach my goal.	1	2	3	4
25	I take additional action to try to get rid of the problem.	1	2	3	4
26	I try to lose myself for a while by drinking alcohol or taking drugs.	1	2	3	4
27	I refuse to believe that it has happened.	1	2	3	4
28	I let my feelings out.	1	2	3	4
29	I try to see it in a different light, to make it seem more positive.	1	2	3	4
30	I talk to someone who could do something concrete about the problem.	1	2	3	4
31	I sleep more than usual.	1	2	3	4
32	I try to come up with a strategy about what to do.	1	2	3	4
33	I focus on dealing with this problem, and if necessary let other things slide a little.	1	2	3	4
34	I get sympathy and understanding from someone.	1	2	3	4
35	I drink alcohol or take drugs, in order to think about it less.	1	2	3	4
36	I kid around about it.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
37	I give up the attempt to get what I want.	1	2	3	4
38	I look for something good in what is happening.	1	2	3	4
39	I think about how I might best handle the problem.	1	2	3	4
40	I pretend that it hasn't really happened.	1	2	3	4
41	I make sure not to make matters worse by acting too soon.	1	2	3	4
42	I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
43	I go to movies or watch TV, to think about it less.	1	2	3	4
44	I accept the reality of the fact that it happened.	1	2	3	4
45	I ask people who have had similar experiences what they did.	1	2	3	4
46	I feel a lot of emotional distress and I find myself expressing those feelings a lot.	1	2	3	4
47	I take direct action to get around the problem.	1	2	3	4
48	I try to find comfort in my religion.	1	2	3	4
49	I force myself to wait for the right time to do something.	1	2	3	4
50	I make fun of the situation.	1	2	3	4
51	I reduce the amount of effort I'm putting into solving the problem.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
52	I talk to someone about how I feel.	1	2	3	4
53	I use alcohol or drugs to help me get through it.	1	2	3	4
54	I learn to live with it.	1	2	3	4
55	I put aside other activities in order to concentrate on this.	1	2	3	4
56	I think hard about what steps to take.	1	2	3	4
57	I act as though it hasn't even happened.	1	2	3	4
58	I do what has to be done, one step at a time.	1	2	3	4
59	I learn something from the experience.	1	2	3	4
60	I pray more than usual.	1	2	3	4

MOS Social Support Survey

Next are some questions about the support that is available to you.

1. About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?

Write in number of close friends and
close relatives:

--	--

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?

(Circle One Number On Each Line)

	None of the Time	A little of the Time	Some of the Time	Most of the Time	All of the Time
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
2. Someone to help you if you were confined to bed	1	2	3	4	5
3. Someone you can count on to listen to you when you need to talk	1	2	3	4	5
4. Someone to give you good advice about a crisis	1	2	3	4	5
5. Someone to take you to the doctor if you needed it	1	2	3	4	5
6. Someone who shows you love and affection	1	2	3	4	5
7. Someone to have a good time with	1	2	3	4	5
8. Someone to give you information to help you understand a situation	1	2	3	4	5
9. Someone to confide in or talk to about yourself or your problems	1	2	3	4	5
10. Someone who hugs you ...	1	2	3	4	5
11. Someone to get together with for relaxation	1	2	3	4	5
12. Someone to prepare your meals if you were unable to do it yourself	1	2	3	4	5
13. Someone whose advice you really want	1	2	3	4	5

	None of the Time	A little of the Time	Some of the Time	Most of the Time	All of the Time
14. Someone to do things with to help you get your mind off things	1	2	3	4	5
15. Someone to help with daily chores if you were sick	1	2	3	4	5
16. Someone to share your most private worries and fears with	1	2	3	4	5
17. Someone to turn to for suggestions about how to deal with a personal problem	1	2	3	4	5
18. Someone to do something enjoyable with	1	2	3	4	5
19. Someone who understands your problems	1	2	3	4	5
20. Someone to love and make you feel wanted	1	2	3	4	5

Additional social support –related questions

The following questions relate to who you consider to be your social support if you experience work-related stress.

1. If faced with work-related stress, who would you turn to for support of any kind? Please put a cross (x) in all the boxes that apply to you.

- | | |
|---|--|
| Nursing colleague <input type="checkbox"/> | Grandparent(s) <input type="checkbox"/> |
| Non-nursing work colleague <input type="checkbox"/> | Other relative/family member <input type="checkbox"/> |
| Your Manager <input type="checkbox"/> | Friend(s) <input type="checkbox"/> |
| Union representative <input type="checkbox"/> | Social networking friends <input type="checkbox"/> |
| Husband/wife/partner <input type="checkbox"/> | A member of your faith/religion <input type="checkbox"/> |
| Parent(s) <input type="checkbox"/> | Your teacher <input type="checkbox"/> |
| Your child/children <input type="checkbox"/> | Your counsellor/therapist <input type="checkbox"/> |
| Sibling(s) <input type="checkbox"/> | |
| Other(s) (please specify)_____ | |

2. If faced with work-related stress, how many different friends in total do you gain support from?				
1-2 Friends <input type="checkbox"/>	3-4 Friends <input type="checkbox"/>	5-6 Friends <input type="checkbox"/>	7 or more Friends <input type="checkbox"/>	I do not use friends for support <input type="checkbox"/>

The end!

My sincere thanks for taking the time to complete this package of questionnaires.

Permissions and acknowledgements:

- Nursing Stress Scale**
 Reproduced with permission from Professor James G. Anderson.
 Gray-Toft, P.A. and J.G. Anderson (1981) The nursing stress scale: development of an instrument, Journal of Behavioral Assessment, 3(1), pp. 11-23.
- Dispositional Resilience Scale (DRS15 –R) – Hardiness**
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- Connor-Davidson Resilience Scale (CD –RISC)**
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Appendix 4 - Phase 2 package of questionnaires

ID. No

The package of questionnaires – Phase 2

Introductory instructions

I would like you to complete this entire package of questionnaires. The package starts with a few questions to discover some key information about you. The rest of the package is related to the key concepts in the research project namely nursing stress, coping, hardiness, resilience and social support. I would like you to answer all questions, but if there is a question that you do not understand or would prefer not to answer, simply leave the question out and move onto the next question. If you do not currently work as a qualified nurse I would still like you to complete the package of questionnaires. All data provided irrespective of your current work status is useful and valuable to me in this research project. Please do not hesitate to contact me if you have any questions or concerns.

My sincere thanks for participating in my research.

Yvonne Halpin (Chief Investigator)

Faculty of Health and Social Care

Email: XXXXXXXX.ac.uk

LSBU XXXXXXXX Campus, Room 8

Direct Line: 0207 XXXXXXXX

General Information Questionnaire

Where indicated please put an 'x' in the response that applies to you.

Name	First Name:	Surname:
Phone number	Home:	Mobile:
Email address		
When did you graduate from your course? _____ month, _____ year		

What cohort were you in when you graduated from your course?

What course did you graduate from?

DipHE Nursing ☐

Adv DipHE Nursing ☐

BSc Nursing ☐

BSc (Hons) Nursing ☐

Information on your employment since graduating from your course

1. Your current employment status:

- I am currently employed as a qualified nurse ☐ ...**Proceed to question 2**
- I am not currently employed as a qualified nurse, but I have been employed as a qualified nurse since I graduated ☐**Proceed to question 10**
- I am not currently employed as a qualified nurse, and I have never been employed as a qualified nurse since I graduated ☐ **Proceed to page 6, 'Additional stress-related questions' and complete the rest of the package of questionnaires.**

2. What is your job title?

3. What band or grade is this job?

4. What specialty do you work in?

5. What organisation do you work for:

NHS Trust Hospital ☐

Non-NHS Hospital ☐

Primary Care Trust ☐

Other (please specify) _____

6. How many months have you been employed in this job?

7. Are you employed full-time or part-time?

Full-time ☐

Part-time ☐How many hours per week? _____

8. What type of contract do you have?

Permanent ☐

Temporary ☐How many months is it for? _____

9. Is this the only job you have had since graduating from your course?

Yes ☐ Proceed to page 4, the 'Nursing Stress Scale' and complete the rest of the package of questionnaires.

No ☐ Proceed to question 10

10. What was your job title?

11. What band or grade was this job?

12. What specialty did you work in?

13. What organisation do you work for:

NHS Trust Hospital ☐

Non-NHS Hospital ☐

Primary Care Trust ☐

Other (please specify) _____

14. How many months were you employed in this job?

15. Were you employed full-time or part-time?

Full-time ☐

Part-time ☐How many hours per week? _____

16. What type of contract did you have?

Permanent ☐

Temporary ☐How many months was it for? _____

Nursing Stress Scale

Below is a list of situations that commonly occur in a hospital unit. For each item indicate by means of a check (✓) how often in your present unit you have found the situation to be stressful. Your responses are strictly confidential.

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
1	Breakdown of the computer.				
2	Criticism by a physician.				
3	Performing procedures that patients experience as painful.				
4	Feeling helpless in the case of a patient who fails to improve.				
5	Conflict with a supervisor.				
6	Listening or talking to a patient about his/her approaching death.				
7	Lack of an opportunity to talk openly with other unit personnel about problems on the unit.				
8	The death of a patient.				
9	Conflict with a physician.				
10	Fear of making a mistake in treating a patient.				
11	Lack of an opportunity to share experiences and feelings with other personnel on the unit.				
12	The death of a patient with whom you developed a close relationship.				
13	Physician not being present when a patient dies.				
14	Disagreement concerning the treatment of a patient.				
15	Feeling inadequately prepared to help with the emotional needs of a patient's family.				

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
16	Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.				
17	Inadequate information from a physician regarding the medical condition of a patient.				
18	Being asked a question by a patient for which I do not have a satisfactory answer.				
19	Making a decision concerning a patient when the physician is unavailable.				
20	Floating to other units that are short-staffed.				
21	Watching a patient suffer.				
22	Difficulty in working with a particular nurse (or nurses) outside the unit.				
23	Feeling inadequately prepared to help with the emotional needs of a patient.				
24	Criticism by a supervisor.				
25	Unpredictable staffing and scheduling.				
26	A physician ordering what appears to be inappropriate treatment for a patient.				
27	Too many non-nursing tasks required, such as clerical work.				
28	Not enough time to provide emotional support to a patient.				
29	Difficulty in working with a particular nurse (or nurses) on the unit.				
30	Not enough time to complete all of my nursing tasks.				

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
31	A physician not being present in a medical emergency.				
32	Not knowing what a patient or a patient's family ought to be told about the patient's medical condition and its treatment.				
33	Uncertainty regarding the operation and functioning of specialized equipment.				
34	Not enough staff to adequately cover the unit.				

Additional stress –related questions

Please answer each question by putting a cross (x) in a box for the response that applies to you.

1. How stressful did you find your Pre-Registration nurse training?				
Not stressful	Slightly stressful	Moderately stressful	Stressful	Extremely stressful
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
2. How stressful have you found working as a qualified nurse?				
Not stressful	Slightly stressful	Moderately stressful	Stressful	Extremely stressful
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
<input type="checkbox"/> Not applicable because I have never worked as a qualified nurse since I graduated. (Proceed to page 8, 'Dispositional Resilience Scale DRS-15R – Hardiness')				
3. Compare what caused you stress as a student nurse to what now causes you stress as a qualified nurse. How similar would you say the causes are:				
Completely the same	A lot of similarities	Some similarities/ some differences	A lot of differences	Completely different
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

<ul style="list-style-type: none"> • Please briefly explain your answer.
<p>4. Do you feel that work-based stress has caused you to be ill since you qualified as a nurse?</p> <p>No <input type="checkbox"/> Proceed to question 5</p> <p>Yes <input type="checkbox"/> If you answered 'Yes' to this question:</p> <ul style="list-style-type: none"> • What illnesses (diagnoses or undiagnosed) or specific signs/symptoms have you developed since qualifying as a nurse that YOU attribute to work-based stress?
<p>5. Has it been suggested to you that you attend one or more of the following because of work-based stress?</p> <p>Stress management course <input type="checkbox"/></p> <p>Personal counselling offered by your place of work <input type="checkbox"/></p> <p>Private counselling <input type="checkbox"/></p> <p>No, it has not been suggested to me to attend any of the above <input type="checkbox"/></p>
<p>6. Have you actually attended one or more of the following because of work-based stress?</p> <p>Stress management course <input type="checkbox"/></p> <p>Personal counselling offered by your place of work <input type="checkbox"/></p> <p>Private counselling <input type="checkbox"/></p> <p>No, I have not attended any of the above <input type="checkbox"/></p>
<p>7. If you have attended a stress management course, personal counselling offered by your place of work or private counselling, do you feel you benefitted from it?</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>

- Please briefly explain your answer.

Dispositional Resilience Scale (DRS15 –R) - Hardiness

Instructions: Below are statements about life that people often feel differently about. Please show how much you think about each one is true. Give your own honest opinions... There are no right or wrong answers.

		not at all true	a little true	quite true	completely true
1	Most of my life gets spent doing things that are meaningful.				
2	Planning ahead can help avoid most future problems.				
3	I don't like to make changes in my regular activities.				
4	I feel that my life is somewhat empty of meaning.				
5	Changes in routine are interesting to me.				
6	By working hard you can nearly always achieve your goals.				
7	I really look forward to my work activities.				
8	If I'm working on a difficult task, I know when to ask for help.				
9	I don't think there's much I can do to influence my own future.				
10	Trying your best at work is really worth it in the end.				
11	It bothers me when my daily routine gets interrupted.				
12	Most days, life is really interesting and exciting for me.				
13	I enjoy the challenge when I have to do more than one thing at a time.				
14	I like having a daily schedule that doesn't change very much.				
15	When I make plans I'm certain I can make them work.				

Connor-Davidson Resilience Scale (CD –RISC)

For each item, please mark an “x” in the box below that best indicates how much you agree with the following statements as they apply to you over the last **month**. If a particular situation has not occurred recently, answer according to how you think you would have felt.

		Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
1	I am able to adapt when changes occur.					
2	I have at least one close and secure relationship that helps me when I am stressed.					
3	When there are no clear solutions to my problems, sometimes fate or God can help.					
4	I can deal with whatever comes my way,					
5	Past successes give me confidence in dealing with new challenges and difficulties.					
6	I try to see the humorous side of things when I am faced with problems.					
7	Having to cope with stress can make me stronger.					
8	I tend to bounce back after illness, injury, or other hardships.					
9	Good or bad, I believe that most things happen for a reason.					
10	I give my best effort no matter what the outcome may be.					
11	I believe I can achieve my goals, even if there are obstacles.					
12	Even when things look hopeless, I don't give up.					

		Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
13	During times of stress/crisis, I know where to turn for help.					
14	Under pressure, I stay focused and think clearly.					
15	I prefer to take the lead in solving problems rather than letting others make all the decisions.					
16	I am not easily discouraged by failure.					
17	I think of myself as a strong person when dealing with life's challenges and difficulties.					
18	I can make unpopular or difficult decisions that affect other people, if it is necessary.					
19	I am able to handle unpleasant or painful feelings like sadness, fear and anger.					
20	In dealing with life's problems, sometimes you have to act on a hunch without knowing why.					
21	I have a strong sense of purpose in life.					
22	I feel in control of my life.					
23	I like challenges.					
24	I work to attain my goals no matter what roadblocks I encounter along the way.					
25	I take pride in my achievements.					

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COPE Inventory

I am interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Respond to each of the following items by putting a circle around one number. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU- not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
1	I try to grow as a person as a result of the experience.	1	2	3	4
2	I turn to work or other substitute activities to take my mind off things.	1	2	3	4
3	I get upset and let my emotions out.	1	2	3	4
4	I try to get advice from someone about what to do.	1	2	3	4
5	I concentrate my efforts on doing something about it.	1	2	3	4
6	I say to myself "this isn't real."	1	2	3	4
7	I put my trust in God.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
8	I laugh about the situation.	1	2	3	4
9	I admit to myself that I can't deal with it, and quit trying.	1	2	3	4
10	I restrain myself from doing anything too quickly.	1	2	3	4
11	I discuss my feelings with someone.	1	2	3	4
12	I use alcohol or drugs to make myself feel better.	1	2	3	4
13	I get used to the idea that it happened.	1	2	3	4
14	I talk to someone to find out more about the situation.	1	2	3	4
15	I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
16	I daydream about things other than this.	1	2	3	4
17	I get upset, and am really aware of it.	1	2	3	4
18	I seek God's help.	1	2	3	4
19	I make a plan of action.	1	2	3	4
20	I make jokes about it.	1	2	3	4
21	I accept that this has happened and that it can't be changed.	1	2	3	4
22	I hold off doing anything about it until the situation permits.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
23	I try to get emotional support from friends or relatives.	1	2	3	4
24	I just give up trying to reach my goal.	1	2	3	4
25	I take additional action to try to get rid of the problem.	1	2	3	4
26	I try to lose myself for a while by drinking alcohol or taking drugs.	1	2	3	4
27	I refuse to believe that it has happened.	1	2	3	4
28	I let my feelings out.	1	2	3	4
29	I try to see it in a different light, to make it seem more positive.	1	2	3	4
30	I talk to someone who could do something concrete about the problem.	1	2	3	4
31	I sleep more than usual.	1	2	3	4
32	I try to come up with a strategy about what to do.	1	2	3	4
33	I focus on dealing with this problem, and if necessary let other things slide a little.	1	2	3	4
34	I get sympathy and understanding from someone.	1	2	3	4
35	I drink alcohol or take drugs, in order to think about it less.	1	2	3	4
36	I kid around about it.	1	2	3	4
37	I give up the attempt to get what I want.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
38	I look for something good in what is happening.	1	2	3	4
39	I think about how I might best handle the problem.	1	2	3	4
40	I pretend that it hasn't really happened.	1	2	3	4
41	I make sure not to make matters worse by acting too soon.	1	2	3	4
42	I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
43	I go to movies or watch TV, to think about it less.	1	2	3	4
44	I accept the reality of the fact that it happened.	1	2	3	4
45	I ask people who have had similar experiences what they did.	1	2	3	4
46	I feel a lot of emotional distress and I find myself expressing those feelings a lot.	1	2	3	4
47	I take direct action to get around the problem.	1	2	3	4
48	I try to find comfort in my religion.	1	2	3	4
49	I force myself to wait for the right time to do something.	1	2	3	4
50	I make fun of the situation.	1	2	3	4
51	I reduce the amount of effort I'm putting into solving the problem.	1	2	3	4
52	I talk to someone about how I feel.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
53	I use alcohol or drugs to help me get through it.	1	2	3	4
54	I learn to live with it.	1	2	3	4
55	I put aside other activities in order to concentrate on this.	1	2	3	4
56	I think hard about what steps to take.	1	2	3	4
57	I act as though it hasn't even happened.	1	2	3	4
58	I do what has to be done, one step at a time.	1	2	3	4
59	I learn something from the experience.	1	2	3	4
60	I pray more than usual.	1	2	3	4

MOS Social Support Survey

Next are some questions about the support that is available to you.

1. About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?

Write in number of close friends and
close relatives:

--	--

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?

(Circle One Number On Each Line)

	None of the Time	A little of the Time	Some of the Time	Most of the Time	All of the Time
2. Someone to help you if you were confined to bed	1	2	3	4	5
3. Someone you can count on to listen to you when you need to talk	1	2	3	4	5
4. Someone to give you good advice about a crisis	1	2	3	4	5
5. Someone to take you to the doctor if you needed it	1	2	3	4	5
6. Someone who shows you love and affection	1	2	3	4	5
7. Someone to have a good time with	1	2	3	4	5
8. Someone to give you information to help you understand a situation	1	2	3	4	5
9. Someone to confide in or talk to about yourself or your problems	1	2	3	4	5
10. Someone who hugs you ...	1	2	3	4	5
11. Someone to get together with for relaxation	1	2	3	4	5
12. Someone to prepare your meals if you were unable to do it yourself	1	2	3	4	5
13. Someone whose advice you really want	1	2	3	4	5
14. Someone to do things with to help you get your mind off things	1	2	3	4	5
15. Someone to help with daily chores if you were sick	1	2	3	4	5
16. Someone to share your most private worries and fears with	1	2	3	4	5
17. Someone to turn to for suggestions about how to deal with a personal problem	1	2	3	4	5

	None of the Time	A little of the Time	Some of the Time	Most of the Time	All of the Time
18. Someone to do something enjoyable with	1	2	3	4	5
19. Someone who understands your problems	1	2	3	4	5
20. Someone to love and make you feel wanted	1	2	3	4	5

Additional social support –related questions

If you have worked as a qualified nurse since you graduated please answer the following questions that relate to who you consider to be your social support if you experience work-related stress.

1. If faced with work-related stress, who would you turn to for support of any kind? Please put a cross (x) in all the boxes that apply to you.				
Nursing colleague	<input type="checkbox"/>	Grandparent(s)	<input type="checkbox"/>	
Non-nursing work colleague	<input type="checkbox"/>	Other relative/family member	<input type="checkbox"/>	
Your Manager	<input type="checkbox"/>	Friend(s)	<input type="checkbox"/>	
Union representative	<input type="checkbox"/>	Social networking friends	<input type="checkbox"/>	
Husband/wife/partner	<input type="checkbox"/>	Former student nurse colleagues	<input type="checkbox"/>	
Parent(s)	<input type="checkbox"/>	A member of your faith/religion	<input type="checkbox"/>	
Your child/children	<input type="checkbox"/>	Your teacher	<input type="checkbox"/>	
Sibling(s)	<input type="checkbox"/>	Your counsellor/therapist	<input type="checkbox"/>	
Other(s) (please specify) _____				
2. If faced with work-related stress, how many different friends in total do you gain support from?				
1-2 Friends	3-4 Friends	5-6 Friends	7 or more Friends	I do not use friends for support
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The end!

My sincere thanks for taking the time to complete this package of questionnaires.

Permissions and acknowledgements:

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Appendix 5 - Phase 3 package of questionnaires

ID. No

The package of questionnaires – Phase 3

Introductory instructions

I would like you to complete this entire package of questionnaires. The package starts with a few questions to discover some key information about you. The rest of the package is related to the key concepts in the research project namely nursing stress, coping, hardiness, resilience and social support. I would like you to answer all questions, but if there is a question that you do not understand or would prefer not to answer, simply leave the question out and move onto the next question. If you do not currently work as a qualified nurse I would still like you to complete the package of questionnaires. All data provided irrespective of your current work status is useful and valuable to me in this research project. Please do not hesitate to contact me if you have any questions or concerns.

My sincere thanks for participating in my research.

Yvonne Halpin (Chief Investigator)

Faculty of Health and Social Care
Email: **XXXXXXXXX**.ac.uk
LSBU **XXXXXXXXX** Campus, Room 8
Direct Line: 0207 **XXXXXXXXX**

General Information Questionnaire

Where indicated please put an 'x' in the response that applies to you.

Name	First Name:	Surname:
Phone number	Home:	Mobile:
Email address		

Information on your employment since graduating from your course

1. Your current employment status:

- I am currently employed as a qualified nurse ☐ ...**Proceed to question 2**
- I am not currently employed as a qualified nurse, but I have been employed as a qualified nurse in the last 6 months ☐**Proceed to question 10**
- I am not currently employed as a qualified nurse, and I have not been employed as a qualified nurse in the last 6 months ☐**Proceed to question 17**

2. What is your job title?

3. What band or grade is this job?

4. What specialty do you work in?

5. What organisation do you work for:

NHS Trust Hospital ☐

Non-NHS Hospital ☐

Primary Care Trust ☐

Other (please specify) _____

6. How many months have you been employed in this job?

7. Are you employed full-time or part-time?

Full-time ☐

Part-time ☐**How many hours per week?** _____

8. What type of contract do you have?

Permanent ☐

Temporary ☐**How many months is it for?** _____

9. Is this the only job you have had since graduating from your course?

Yes ☐ **Proceed to question 17**

No ☐ **Proceed to question 10**

10. What was your job title?

11. What band or grade was this job?

12. What specialty did you work in?

13. What organisation do you work for:

NHS Trust Hospital ☐

Non-NHS Hospital ☐

Primary Care Trust ☐

Other (please specify) _____

14. How many months were you employed in this job?

15. Were you employed full-time or part-time?

Full-time ☐

Part-time ☐ **How many hours per week?** _____

16. What type of contract did you have?

Permanent ☐

Temporary ☐ **How many months was it for?** _____

Nursing Stress Scale

Below is a list of situations that commonly occur in a hospital unit. For each item indicate by means of a check (✓) how often in your present unit you have found the situation to be stressful. Your responses are strictly confidential.

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
1	Breakdown of the computer.				
2	Criticism by a physician.				
3	Performing procedures that patients experience as painful.				
4	Feeling helpless in the case of a patient who fails to improve.				
5	Conflict with a supervisor.				
6	Listening or talking to a patient about his/her approaching death.				
7	Lack of an opportunity to talk openly with other unit personnel about problems on the unit.				
8	The death of a patient.				
9	Conflict with a physician.				
10	Fear of making a mistake in treating a patient.				
11	Lack of an opportunity to share experiences and feelings with other personnel on the unit.				
12	The death of a patient with whom you developed a close relationship.				
13	Physician not being present when a patient dies.				
14	Disagreement concerning the treatment of a patient.				
15	Feeling inadequately prepared to help with the emotional needs of a patient's family.				

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
16	Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.				
17	Inadequate information from a physician regarding the medical condition of a patient.				
18	Being asked a question by a patient for which I do not have a satisfactory answer.				
19	Making a decision concerning a patient when the physician is unavailable.				
20	Floating to other units that are short-staffed.				
21	Watching a patient suffer.				
22	Difficulty in working with a particular nurse (or nurses) outside the unit.				
23	Feeling inadequately prepared to help with the emotional needs of a patient.				
24	Criticism by a supervisor.				
25	Unpredictable staffing and scheduling.				
26	A physician ordering what appears to be inappropriate treatment for a patient.				
27	Too many non-nursing tasks required, such as clerical work.				
28	Not enough time to provide emotional support to a patient.				
29	Difficulty in working with a particular nurse (or nurses) on the unit.				
30	Not enough time to complete all of my nursing tasks.				

		Never (1)	Occasionally (2)	Frequently (3)	Very Frequently (4)
31	A physician not being present in a medical emergency.				
32	Not knowing what a patient or a patient's family ought to be told about the patient's medical condition and its treatment.				
33	Uncertainty regarding the operation and functioning of specialized equipment.				
34	Not enough staff to adequately cover the unit.				

Additional stress –related questions

Please answer each question by putting a cross (x) in a box for the response that applies to you.

1. How stressful did you find your Pre-Registration nurse training?				
Not stressful	Slightly stressful	Moderately stressful	Stressful	Extremely stressful
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
2. How stressful have you found working as a qualified nurse?				
Not stressful	Slightly stressful	Moderately stressful	Stressful	Extremely stressful
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
<input type="checkbox"/> Not applicable because I have never worked as a qualified nurse since I graduated. (Proceed to page 8, 'Dispositional Resilience Scale DRS -15R – Hardiness')				
3. Compare what caused you stress as a student nurse to what now causes you stress as a qualified nurse. How similar would you say the causes are:				
Completely the same	A lot of similarities	Some similarities/ some differences	A lot of differences	Completely different
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

- Please briefly explain your answer.

4. Do you feel that work-based stress has caused you to be ill since you qualified as a nurse?

No ☐ Proceed to question 5

Yes ☐ If you answered 'Yes' to this question:

- What illnesses (diagnoses or undiagnosed) or specific signs/symptoms have you developed since qualifying as a nurse that YOU attribute to work-based stress?

5. Has it been suggested to you that you attend one or more of the following because of work-based stress?

Stress management course ☐

Personal counselling offered by your place of work ☐

Private counselling ☐

No, it has not been suggested to me to attend any of the above ☐

6. Have you actually attended one or more of the following because of work-based stress?

Stress management course ☐

Personal counselling offered by your place of work ☐

Private counselling ☐

No, I have not attended any of the above ☐

7. If you have attended a stress management course, personal counselling offered by your place of work or private counselling, do you feel you benefitted from it?

Yes ☐

No ☐

- Please briefly explain your answer.

Dispositional Resilience Scale (DRS15 –R) - Hardiness

Instructions: Below are statements about life that people often feel differently about. Please show how much you think about each one is true. Give your own honest opinions... There are no right or wrong answers.

		not at all true	a little true	quite true	completely true
1	Most of my life gets spent doing things that are meaningful.				
2	Planning ahead can help avoid most future problems.				
3	I don't like to make changes in my regular activities.				
4	I feel that my life is somewhat empty of meaning.				
5	Changes in routine are interesting to me.				
6	By working hard you can nearly always achieve your goals.				
7	I really look forward to my work activities.				
8	If I'm working on a difficult task, I know when to ask for help.				
9	I don't think there's much I can do to influence my own future.				
10	Trying your best at work is really worth it in the end.				
11	It bothers me when my daily routine gets interrupted.				
12	Most days, life is really interesting and exciting for me.				
13	I enjoy the challenge when I have to do more than one thing at a time.				
14	I like having a daily schedule that doesn't change very much.				
15	When I make plans I'm certain I can make them work.				

Connor-Davidson Resilience Scale (CD –RISC)

For each item, please mark an “x” in the box below that best indicates how much you agree with the following statements as they apply to you over the last **month**. If a particular situation has not occurred recently, answer according to how you think you would have felt.

		Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
1	I am able to adapt when changes occur.					
2	I have at least one close and secure relationship that helps me when I am stressed.					
3	When there are no clear solutions to my problems, sometimes fate or God can help.					
4	I can deal with whatever comes my way,					
5	Past successes give me confidence in dealing with new challenges and difficulties.					
6	I try to see the humorous side of things when I am faced with problems.					
7	Having to cope with stress can make me stronger.					
8	I tend to bounce back after illness, injury, or other hardships.					
9	Good or bad, I believe that most things happen for a reason.					
10	I give my best effort no matter what the outcome may be.					
11	I believe I can achieve my goals, even if there are obstacles.					
12	Even when things look hopeless, I don't give up.					

		Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
13	During times of stress/crisis, I know where to turn for help.					
14	Under pressure, I stay focused and think clearly.					
15	I prefer to take the lead in solving problems rather than letting others make all the decisions.					
16	I am not easily discouraged by failure.					
17	I think of myself as a strong person when dealing with life's challenges and difficulties.					
18	I can make unpopular or difficult decisions that affect other people, if it is necessary.					
19	I am able to handle unpleasant or painful feelings like sadness, fear and anger.					
20	In dealing with life's problems, sometimes you have to act on a hunch without knowing why.					
21	I have a strong sense of purpose in life.					
22	I feel in control of my life.					
23	I like challenges.					
24	I work to attain my goals no matter what roadblocks I encounter along the way.					
25	I take pride in my achievements.					

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COPE Inventory

I am interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Respond to each of the following items by putting a circle around one number. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU- not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
1	I try to grow as a person as a result of the experience.	1	2	3	4
2	I turn to work or other substitute activities to take my mind off things.	1	2	3	4
3	I get upset and let my emotions out.	1	2	3	4
4	I try to get advice from someone about what to do.	1	2	3	4
5	I concentrate my efforts on doing something about it.	1	2	3	4
6	I say to myself "this isn't real."	1	2	3	4
7	I put my trust in God.	1	2	3	4
8	I laugh about the situation.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
9	I admit to myself that I can't deal with it, and quit trying.	1	2	3	4
10	I restrain myself from doing anything too quickly.	1	2	3	4
11	I discuss my feelings with someone.	1	2	3	4
12	I use alcohol or drugs to make myself feel better.	1	2	3	4
13	I get used to the idea that it happened.	1	2	3	4
14	I talk to someone to find out more about the situation.	1	2	3	4
15	I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
16	I daydream about things other than this.	1	2	3	4
17	I get upset, and am really aware of it.	1	2	3	4
18	I seek God's help.	1	2	3	4
19	I make a plan of action.	1	2	3	4
20	I make jokes about it.	1	2	3	4
21	I accept that this has happened and that it can't be changed.	1	2	3	4
22	I hold off doing anything about it until the situation permits.	1	2	3	4
23	I try to get emotional support from friends or relatives.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
24	I just give up trying to reach my goal.	1	2	3	4
25	I take additional action to try to get rid of the problem.	1	2	3	4
26	I try to lose myself for a while by drinking alcohol or taking drugs.	1	2	3	4
27	I refuse to believe that it has happened.	1	2	3	4
28	I let my feelings out.	1	2	3	4
29	I try to see it in a different light, to make it seem more positive.	1	2	3	4
30	I talk to someone who could do something concrete about the problem.	1	2	3	4
31	I sleep more than usual.	1	2	3	4
32	I try to come up with a strategy about what to do.	1	2	3	4
33	I focus on dealing with this problem, and if necessary let other things slide a little.	1	2	3	4
34	I get sympathy and understanding from someone.	1	2	3	4
35	I drink alcohol or take drugs, in order to think about it less.	1	2	3	4
36	I kid around about it.	1	2	3	4
37	I give up the attempt to get what I want.	1	2	3	4
38	I look for something good in what is happening.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
39	I think about how I might best handle the problem.	1	2	3	4
40	I pretend that it hasn't really happened.	1	2	3	4
41	I make sure not to make matters worse by acting too soon.	1	2	3	4
42	I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
43	I go to movies or watch TV, to think about it less.	1	2	3	4
44	I accept the reality of the fact that it happened.	1	2	3	4
45	I ask people who have had similar experiences what they did.	1	2	3	4
46	I feel a lot of emotional distress and I find myself expressing those feelings a lot.	1	2	3	4
47	I take direct action to get around the problem.	1	2	3	4
48	I try to find comfort in my religion.	1	2	3	4
49	I force myself to wait for the right time to do something.	1	2	3	4
50	I make fun of the situation.	1	2	3	4
51	I reduce the amount of effort I'm putting into solving the problem.	1	2	3	4
52	I talk to someone about how I feel.	1	2	3	4
53	I use alcohol or drugs to help me get through it.	1	2	3	4

		I usually don't do this at all (1)	I usually do this a little bit (2)	I usually do this a medium amount (3)	I usually do this a lot (4)
54	I learn to live with it.	1	2	3	4
55	I put aside other activities in order to concentrate on this.	1	2	3	4
56	I think hard about what steps to take.	1	2	3	4
57	I act as though it hasn't even happened.	1	2	3	4
58	I do what has to be done, one step at a time.	1	2	3	4
59	I learn something from the experience.	1	2	3	4
60	I pray more than usual.	1	2	3	4

MOS Social Support Survey

Next are some questions about the support that is available to you.

1. About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?

Write in number of close friends and
close relatives:

--	--

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?

(Circle One Number On Each Line)

	None of the Time	A little of the Time	Some of the Time	Most of the Time	All of the Time
	_____	_____	_____	_____	_____
2. Someone to help you if you were confined to bed	1	2	3	4	5
3. Someone you can count on to listen to you when you need to talk	1	2	3	4	5
4. Someone to give you good advice about a crisis	1	2	3	4	5
5. Someone to take you to the doctor if you needed it	1	2	3	4	5
6. Someone who shows you love and affection	1	2	3	4	5
7. Someone to have a good time with	1	2	3	4	5
8. Someone to give you information to help you understand a situation	1	2	3	4	5
9. Someone to confide in or talk to about yourself or your problems	1	2	3	4	5
10. Someone who hugs you ...	1	2	3	4	5
11. Someone to get together with for relaxation	1	2	3	4	5
12. Someone to prepare your meals if you were unable to do it yourself	1	2	3	4	5
13. Someone whose advice you really want	1	2	3	4	5

	None of the Time	A little of the Time	Some of the Time	Most of the Time	All of the Time
14. Someone to do things with to help you get your mind off things	1	2	3	4	5
15. Someone to help with daily chores if you were sick	1	2	3	4	5
16. Someone to share your most private worries and fears with	1	2	3	4	5
17. Someone to turn to for suggestions about how to deal with a personal problem	1	2	3	4	5
18. Someone to do something enjoyable with	1	2	3	4	5
19. Someone who understands your problems	1	2	3	4	5
20. Someone to love and make you feel wanted	1	2	3	4	5

Additional social support –related questions

If you have worked as a qualified nurse since you graduated please answer the following questions that relate to who you consider to be your social support if you experience work-related stress.

1. If faced with work-related stress, who would you turn to for support of any kind? Please put a cross (x) in all the boxes that apply to you.

- | | |
|---|--|
| Nursing colleague <input type="checkbox"/> | Grandparent(s) <input type="checkbox"/> |
| Non-nursing work colleague <input type="checkbox"/> | Other relative/family member <input type="checkbox"/> |
| Your Manager <input type="checkbox"/> | Friend(s) <input type="checkbox"/> |
| Union representative <input type="checkbox"/> | Social networking friends <input type="checkbox"/> |
| Husband/wife/partner <input type="checkbox"/> | Former student nurse colleagues <input type="checkbox"/> |
| Parent(s) <input type="checkbox"/> | A member of your faith/religion <input type="checkbox"/> |
| Your child/children <input type="checkbox"/> | Your teacher <input type="checkbox"/> |
| Sibling(s) <input type="checkbox"/> | Your counsellor/therapist <input type="checkbox"/> |
| Other(s) (please specify) _____ | |

2. If faced with work-related stress, how many different friends in total do you gain support from?				
1-2 Friends	3-4 Friends	5-6 Friends	7 or more Friends	I do not use friends for support
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The end!

My sincere thanks for taking the time to complete this package of questionnaires.

Permissions and acknowledgements:

- Nursing Stress Scale**
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 Gray-Toft, P.A. and J.G. Anderson (1981) The nursing stress scale: development of an instrument, Journal of Behavioral Assessment, 3(1), pp. 11-23.
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Appendix 6 - Phase 4 interview schedule

Interview Schedule

Thank you for coming today and agreeing to participate in this interview. I am going to ask you a number of questions, but if there is a question I ask you that you do not want to answer you are most welcome to say to me that you do not want to answer that question and I will move on to the next question. If you are happy for me to start the interview, I will switch on the recorder.

1. What things have caused you stress at work during your first year as a qualified nurse?
2. How do you cope with work-related stress?
 - Prompt: What social support do you have to draw on to assist you with work-based stress?
 - Prompt: How does this person/people provide you with support?
 - Prompt: Do you use any other ways to cope with work-related stress e.g. take days off work, drink alcohol when you get home?
3. Hardiness is like a hardy plant that can survive being lashed by cold winds or long periods without water. The hardy person can withstand periods of profound stress and yet maintain their health. Resilience is like a heavy weight being placed on a spring, release the weight and the spring returns to its original shape. A resilient person may be initially squashed by a stressful event, but ultimately they will spring back to their original healthy self. How would you describe your hardiness and resilience?
4. How did your Pre-Registration education help you cope with work-related stress?
5. Is there anything that could have been done in your Pre-Registration education to help you cope with work-related stress?
 - Prompt: Is there something you could have been taught?
6. Is there anything your clinical area could have done to help you with the stressors you have encountered in your first year as a qualified nurse?

This interview is now finished so thank you very much for participating.

Appendix 7 - Participant consent form

Participant's Consent form

Research project title:

Newly qualified nurses: stress experiences and stress modifying factors – a longitudinal study.

Tick box

- ☐ I have read the 'Information sheet' by the Chief Investigator and have kept a copy of the 'Information sheet' should I wish to refer to it in the future.
- ☐ I believe I have an understanding of the research project, the aims and nature of the research project. I understand that the Chief Investigator will periodically contact me over a 12 month period from when the research project commences.
- ☐ I understand that my involvement in the research project and my data will be held in a secure location and remain strictly confidential. My data will only be accessed by the Chief Investigator and other Researchers directly involved with this research project.
- ☐ I have been informed about what data I will be asked to provide and for what purpose it will be used. I understand that my data will not be used for any other purpose than what has been told to me.
- ☐ I have been given the opportunity to ask the Chief Investigator and the other Researchers cited on the 'Information sheet' any questions I had about this research project and my participation in it. Any questions I had have been satisfactorily answered and I no longer have any questions outstanding.
- ☐ I hereby freely and knowingly give my consent to participate in this research project.
- ☐ I understand that I can withdraw my consent to participate at any point during the research project without the need to explain my decision to the Chief Investigator, though any data that I had provided up to the point of withdrawal will continue to be used by the Chief Investigator.
- ☐ I understand that my participation or withdrawal from this research project will have no impact on my Pre-Registration nurse education or my qualified nursing career.

Participant's First name:

Surname:

Participant's Signature:

Date:

Chief Investigator's signature:

If you have any concerns about this research project or your participation in it, please contact the Chief Investigator, Yvonne Halpin.

Faculty of Health and Social Care

Email: **XXXXXXXXX**.ac.uk

LSBU **XXXXXXXXX** Campus, Room 8

Direct Line: 0207 **XXXXXXXXX**

Appendix 8 - Participant information sheet

Participant's Information Sheet

Research project title: Newly qualified nurses: stress experiences and stress-mediating factors – a longitudinal study.

This Information Sheet will provide you with a description of this research project and what your involvement will be, if you consent to participate. Please take some time to read this Information Sheet and discuss it with others if you wish. You are also welcome to contact the Chief Investigator if you have any questions or concerns. In due course the Chief Investigator will schedule a meeting with your cohort, invite any unanswered questions about the research project and then present you and each member of your cohort with a 'consent to participate in the research project' form. Therefore, it is important that you understand all aspects of the study so that you are fully aware of what you are being invited to consent to take part in.

Who is doing this research project?

The Chief Investigator for this research project is Yvonne Halpin. The research project is being undertaken by the Chief Investigator to fulfil the requirements of an MPhil/PhD at London South Bank University. Prof. XXXXXXXXX and Dr. XXXXXXXXX are supervising the Chief Investigator throughout this project.

What is the purpose of this research project?

The Chief Investigator has a particular interest in stress associated with being a newly qualified nurse. The causes of stress for student nurses and qualified nurses have been the focus of many studies. However, what causes stress to newly qualified nurses and how the nurse copes with these stressors is an area that has received little consideration and therefore this project will generate new knowledge for the profession.

In addition, the Chief Investigator is also interested in different personality traits and their influence on how a person responds to stress. The two personality traits that will be investigated in this project are hardiness and resilience. Hardiness is like a hardy plant that can survive being lashed by cold winds or long periods without water. The hardy person can withstand periods of profound stress, maintaining their health. Resilience is like a heavy weight being placed on a spring, when the weight is released the spring returns to its original shape. A resilient person may be initially squashed by a stressful event, but ultimately they will spring back to their original healthy self.

Combining all these ideas this research project has two aims:

1. To determine what stressors newly qualified adult trained nurses experience during the first 12 months of their nursing career.
2. To investigate the importance of coping, hardiness, resilience and social support on the stress experience of newly qualified adult trained nurses.

Why have I been chosen?

You have been approached to take part in this project because you are now at the end of your nurse education and will soon be embarking on your qualified nursing career. All other LSBU adult branch student nurses, who are about to complete their education, have also been invited to participate in this research project. The Chief Investigator does not require a set number of students to participate in this project. All students who are about to complete their training are eligible and welcome to participate.

Do I have to take part and am I allowed to withdraw from the research project?

You must not feel obliged to consent to take part in this research project. Whether you choose to take part or not will have no impact on your Pre-Registration nurse education or on your progress as a qualified nurse. Should you consent to take part, you can still stop participating in the research project at any time, without the need to explain your decision. If you withdraw from the research project any data that you had provided while you were participating will still be used by the Chief Investigator.

What will happen to me if I take part in this research project?

Once you feel that you have all the information you need about this research project and you are happy to sign a 'consent to participate in the research project' form, you will complete a package of questionnaires and be given a 'Certificate of Research Participation' for inclusion in your personal professional portfolio. You will be asked to complete a package of questionnaires at 6 months post-qualifying and then again at 12 months post-qualifying. Therefore, your involvement in this research project will last for 12 months in total, which covers your first year as a qualified nurse.

For the vast majority of participants all that will be required of them is to complete the package of questionnaires on the 3 occasions over a 12 month period. However, a small number of participants will be randomly selected and invited to attend a one-to-one interview with the Chief Investigator at 12 months post-qualifying.

What data will be collected from me and when?

The package of questionnaires should take 20-40 minutes to complete and will consist of questions requiring responses such as; circle yes or no, tick a box, circle a number on a scale of 1-5. The questions are intended to measure aspects of your hardiness, resilience, coping, social support and nursing-related stress. In addition, there are some questions aimed at gaining a greater understanding of who you are such as age, gender, nursing qualification obtained.

The first time you complete the package of questionnaires you will be in a classroom at the University. However, at 6 months and 12 months post-qualifying the Chief Investigator will either post the package of questionnaires to your home address with a pre-paid return envelope or email the package of questionnaires to you, whatever is your preferred option. If the Chief Investigator does not receive the completed package of questionnaires 4 weeks after they are sent to you, the Chief Investigator will contact you once as a reminder.

When you receive the package of questionnaires 12 months post-qualifying, it will include a form for you to complete if you are prepared to be interviewed by the Chief Investigator. Upon receiving your completed form indicating your willingness to be interviewed, the Chief Investigator will contact you. In the interview the Chief Investigator will ask you questions related to hardiness, resilience, coping, social support and nursing-related stress, seeking to discover what your thoughts, feelings and experiences have been. The interview should take about 45-60 minutes. The interview will be held at a mutually convenient location and time and will be audio-recorded so it can be transcribed.

The interviews are a separate phase of this research project, which you are free to choose to take part in or not. You may choose to complete the package of questionnaires, but not want to take part in an interview. This would be completely acceptable within the design of this research project.

What are the possible risks or disadvantages of taking part?

There are no risks in taking part in this research project. All aspects of this research project have been approved by the LSBU Research Ethics committee. In addition, participation in this research will have no impact on your Pre-Registration nurse education or on your progress as a qualified nurse. There is a slight disadvantage in that participation in the research requires a time commitment to complete the questionnaires and potentially participate in an interview. Also, should a significant issue in practice be revealed during the interview, the Chief Investigator will discuss the issue with you at the end of the interview and together it will be decided whether to invoke NMC and/or Trust policies and procedures.

What are the possible benefits of taking part?

By participating in this research project you may increase your understanding of the research process as well as gain knowledge about hardiness, resilience, coping, social support and nursing-related stress, which may benefit you and others in your nursing career. In addition you will receive a 'Certificate of Research Participation', which you can include in your personal professional portfolio as evidence that you participated in a research project that contributed to knowledge and understanding in the nursing profession and developed your understanding of the research process.

Will my taking part in this research project be kept confidential?

As an entire cohort is involved in this research project you will inevitably know and be known by other participants. Beyond this issue, the Chief Investigator will require you to put your name on questionnaires in order to chart your development through the 12 month period, but the Chief Investigator will then convert your name to a random code when presenting the research data. Therefore, only the Chief Investigator and other Researchers directly involved with this research project will know or have access to your true identity. All research data and personal information will be kept in a locked filing cabinet or on a password protected computer in the Chief Investigator's office for a maximum of 5 years after the research project is completed, after which it will be destroyed.

What will happen to the results of the research project?

Anonymized results will be presented in the Chief Investigator's final PhD thesis and will be used by the Chief Investigator in future presentations and publications.

Who do I contact for more information?

If you wish to have more information regarding this research project, you have questions or concerns then please do not hesitate to contact the Chief Investigator, Yvonne Halpin.

Yvonne Halpin
London South Bank University
XXXXXXXXXX

Email: XXXXXXXXXX.ac.uk
Direct Line: 0207 XXXXXXXXXX

If the Chief Investigator is unavailable or you would like advice from an alternative source on this research project and your participation in it, the Chief Investigator's supervisory team can be contacted.

Prof. XXXXXXXXXX
Professor of Practice Development
London South Bank University
XXXXXXXXXX

Email: XXXXXXXXXX.ac.uk
Direct line: 0207 XXXXXXXXXX

Dr. XXXXXXXXXX
Senior Lecturer in Law and Ethics
London South Bank University
XXXXXXXXXX

Email: XXXXXXXXXX.ac.uk
Direct Line: 0207 XXXXXXXXXX

What can I do if I am unhappy at any point in this research project?

If you become unhappy at any point in this research project, you can discuss the situation with the Chief Investigator or contact the Chief Investigator's supervisory team. Alternatively, you may decide you wish to complain more formally. You can do this through the University's Complaints Procedure. Details can be obtained from the University's website: <http://www.lsbu.ac.uk/research>.

**My sincere thanks to you for taking the time to read this Information Sheet
and for considering taking part in this research project.**



LONDON SOUTH BANK
UNIVERSITY

Certificate of Research Participation

Awarded to

This is to certify that the above
named participated on:

9th February 2010

in the research project entitled:

*Newly qualified nurses: stress experiences and
stress-mediating factors – a longitudinal study*

(Signature of Chief Investigator)

Chief Investigator

Yvonne Halpin

Email: XXXXXXXX @lsbu.ac.uk

Direct Line: 0207 XXXXXXXX

Appendix 10 - Participant information sheet – interview stage only

Participant's Information Sheet for the Interview stage only

Research project title: Newly qualified nurses: stress experiences and stress-mediating factors – a longitudinal study.

Firstly, the Chief Investigator would like to thank you for your ongoing participation in this research project with the completion of the package of questionnaires over the last 12 months. This Information Sheet concerns the Interview stage only of this research project. Please take some time to read this Information Sheet and discuss it with others if you wish. You are also welcome to contact the Chief Investigator if you have any questions or concerns. Once you have done this, if you are happy to be contacted by the Chief Investigator and invited for an interview please complete and return the enclosed 'Agreement to be contacted for an interview' form with your package of questionnaires.

What is the purpose of this research project?

The Chief Investigator has a particular interest in stress associated with being a newly qualified nurse and to this end designed a research project that has 2 aims:

1. To determine what stressors newly qualified adult trained nurses' experience during the first 12 months of their nursing career.
2. To investigate the importance of coping, hardiness, resilience and social support on the stress experience of newly qualified adult trained nurses.

What are the key aspects of this research project's design?

There are 2 key aspects to this research project's design. The first key aspect is that it is a longitudinal study. The Chief Investigator wanted to determine, using statistics gained from questionnaires, how each participant might have changed over the first 12 months of their qualified nursing career. The second key aspect is that it uses a mixed methods approach. The Chief Investigator not only wanted to use statistics gained from questionnaires, but also ask some participants what their experiences have been by interviewing them.

What will the interview be about?

The interview will consist of a small number of questions all related to the 2 aims of this research project.

Who will conduct the interview and how long will it last?

The interview will be conducted by the Chief Investigator. It is estimated that each interview will last 45-60 minutes.

Am I allowed to bring someone else to the interview?

Ideally the Chief Investigator would prefer to interview you alone to reduce any potential distractions. However, if you would like to bring someone to the interview this needs to be arranged and agreed by the Chief Investigator prior to the interview and the person you bring to the interview can only be an observer rather than a contributor.

Where and when will the interview take place?

The Chief Investigator will contact you and together set up a mutually convenient time in order to conduct the interview. All interviews will be conducted at LSBU at a mutually agreeable campus.

Am I the only person that has been asked to participate in an interview?

No, all participants that have taken part in this research project over the last 12 months have been asked to consider taking part in an interview.

What do I need to do if I do not want to participate in an interview and what will happen after that?

If you decide that you do not want to participate in an interview then you will not be contacted by the Chief Investigator when interview times are being set up. However, all the data you have provided in the package of questionnaires over the last 12 months will continue to be used in the research project. As this was the last package of questionnaires you were due to receive, your participation in this research project will have concluded.

What do I need to do if I am willing to participate in an interview and what will happen after that?

If you decide that you are willing to take part in an interview with the Chief Investigator then initially you need to complete the enclosed 'Agreement to be contacted for an interview' form and return it with the package of questionnaires that you have received. The Chief Investigator only needs to conduct approximately 18 interviews. Therefore, as the Chief Investigator receives a form from a participant indicating willingness to participate in an interview, the Chief Investigator will contact that participant to set up an interview appointment. When all the required number of interviews has been completed, the Chief Investigator will cease interviewing participants though the Chief Investigator will still contact each participant that responds so they are aware of what is happening. If this is the case for you, then as this was the last package of questionnaires you were due to receive, your participation in this research project will have concluded.

If the Chief Investigator contacts you seeking to set up an interview appointment, then when you attend the interview the Chief Investigator will give you a 'Consent to participate in an Interview' form for you to read and sign. You will then be interviewed by the Chief Investigator. The end of the interview will conclude your participation in this research project.

How will my interview be recorded?

Your interview with the Chief Investigator will be recorded using an audio recording device. The Chief Investigator will also take written notes during the interview. If you do not feel comfortable having your interview audio recorded then you should not return the 'Agreement to be contacted for an interview' form as unfortunately all interviews must be audio recorded for consistency and accuracy.

What should I do if I am asked a question that I do not want to answer or am asked a question that I do not understand?

Throughout the interview you must only say what feels right and comfortable for you. There are no right and wrong answers. The Chief Investigator only wants to

gain an understanding of your opinions. If you are asked a question that you do not feel happy to answer then simply indicate this to the Chief Investigator and she will move onto the next question. You will not be asked why you do not want to answer the question. If you are asked a question that you do not understand, indicate this to the Chief Investigator and she will re-phrase or expand upon the question.

What will happen if I become upset during the interview?

It may be the case that in answering an interview question you recall an incident that then makes you upset during the interview or you become upset for another reason. If this happens the Chief Investigator will suspend the interview to allow you to have a break and recompose. The Chief Investigator will then ask you if you want to proceed with the interview or terminate it. You will be completely free to choose which ever option suits how you are feeling. If the interview is terminated, then the data you had provided up to that point will be used by the Chief Investigator. The interview will not be rescheduled or completed at another time.

Will my taking part in this interview be kept confidential?

The Chief Investigator will have converted your name to a random code when you first completed the package of questionnaires. This code will continue to be used for your interview. Therefore, only the Chief Investigator and other Researchers directly involved with this research project will know or have access to your true identity. All audio recordings, research data and personal information will be kept in a locked filing cabinet in the Chief Investigator's office or on a password protected computer for a maximum of 5 years after the research project is completed, after which it will be destroyed.

What are the possible risks or disadvantages of taking part?

All aspects of this research project including the interview schedule have been approved by the LSBU Research Ethics committee. There is a slight disadvantage in that participation in the interview requires some of your time and it may cost you money to travel to the LSBU campus of your choice. Also, should a significant issue in practice be revealed during the interview, the Chief Investigator will discuss the issue with you at the end of the interview and together it will be decided whether to invoke NMC and/or Trust policies and procedures.

What are the possible benefits of taking part?

By participating in the interview you will have the opportunity to present your opinions and experiences from your first year as a qualified nurse. This may be a positive experience for you to be able to share your story with the Chief Investigator, someone who is interested in what you have to say.

What will happen to the results of the research project?

Anonymized results will be presented in the Chief Investigator's final PhD thesis and will be used by the Chief Investigator in future presentations and publications.

Who do I contact for more information?

If you wish to have more information regarding this research project, you have questions or concerns then please do not hesitate to contact the Chief Investigator, Yvonne Halpin.

Yvonne Halpin
London South Bank University
XXXXXXXX

Email: **XXXXXXXX** ac.uk
Direct Line: 0207 **XXXXXXXX**

If the Chief Investigator is unavailable or you would like advice from an alternative source on this research project and your participation in it, the Chief Investigator's supervisory team can be contacted.

Prof. **XXXXXXXX**
Professor of Practice Development
London South Bank University
XXXXXXXX

Email: **XXXXXXXX**.ac.uk
Direct line: 0207 **XXXXXXXX**

Dr. **XXXXXXXX**
Senior Lecturer in Law and Ethics
London South Bank University
XXXXXXXX

Email: **XXXXXXXX**.ac.uk
Direct Line: 0207 **XXXXXXXX**

What can I do if I am unhappy at any point in this research project?

If you become unhappy at any point in this research project, you can discuss the situation with the Chief Investigator or contact the Chief Investigator's supervisory team. Alternatively, you may decide you wish to complain more formally. You can do this through the University's Complaints Procedure. Details can be obtained from the University's website: <http://www.lsbu.ac.uk/research>.

My sincere thanks to you for taking the time to read this Information Sheet and for considering taking part in the interview stage of this research project.

Appendix 11 - Participant consent form – interview stage only

Participant's Consent to Participate in an Interview form

Research project title:

Newly qualified nurses: stress experiences and stress modifying factors – a longitudinal study.

Tick box

- ☐ I have read the 'Information sheet for the interview stage' by the Chief Investigator and have kept a copy should I wish to refer to it in the future.
- ☐ I believe I have an understanding of the research project, the aims and nature of the research project.
- ☐ I understand that my interview data along with the rest of my research project data will be held in a secure location and remain strictly confidential. My data will only be accessed by the Chief Investigator and other Researchers directly involved with this research project.
- ☐ I have been informed about what data I will be asked to provide in the interview and for what purpose it will be used. I understand that my data will not be used for any other purpose than what has been told to me.
- ☐ I have been given the opportunity to ask the Chief Investigator and the other Researchers cited on the 'Information sheet for the interview stage' any questions. Any questions I had have been satisfactorily answered and I no longer have any questions outstanding.
- ☐ I hereby freely and knowingly give my consent to participate in this interview.
- ☐ I hereby freely and knowingly give my consent for my interview to be audio-recorded and for the Chief Investigator to take written notes during my interview.
- ☐ I understand that I can withdraw my consent to participate at any point during the interview without the need to explain my decision to the Chief Investigator, though any data that I had provided up to the point of withdrawal will continue to be used by the Chief Investigator.

Participant's First name:

Surname:

Participant's Signature:

Date:

Chief Investigator's signature:

If you have any concerns about this research project or your participation in it, please contact the Chief Investigator, Yvonne Halpin.

Faculty of Health and Social Care

Email: **XXXXXXXXX**.ac.uk

LSBU **XXXXXXXXX** Campus, Room 8

Direct Line: 0207 **XXXXXXXXX**

Appendix 12 - University Research Ethics Committee research approval correspondence

Letter dated 13th January 2010 from the university Research Ethics Committee that approval had been granted for the research to be conducted.



Appendix 13 - University Research Ethics Committee research amendment approval correspondence (post-pilot of Phase 1)

Email dated 13th July 2010 from the Deputy University Secretary that the Chair of the university Research Ethics Committee had approved amendments requested following the pilot of Phase 1.

From: **XXXXXXXXXX** *Deputy University Secretary*

Sent: 13 July 2010 14:03

To: Halpin, Yvonne

Cc: **XXXXXXXXXX** *Supervisors, Chair of the Research Ethics Committee*

Subject: RE: Ethics application - "Newly qualified nurses: stress experiences and stress mediating factors"

Dear Yvonne,

Thanks for this. The Chair has given approval.

Best,

XXXXXXXXXX *Deputy University Secretary*

Appendix 14 - University Research Ethics Committee research amendment approval correspondence (post-pilot of Phase 2)

Letter dated 4th April 2011 from the Secretary of the university Research Ethics Committee that the Chair of the university Research Ethics Committee had approved amendments requested following the pilot of Phase 2.



Direct line: 020- **XXXXXXXXXX**
E-mail: **XXXXXXXXXX**.ac.uk

Ref: UREC 0945
Yvonne Halpin
Senior Lecturer
Health and Social Care
XXXXXXXXXX

4th April 2011

Dear Yvonne,

Newly qualified nurses: stress experiences and stress modifying factors – a longitudinal study

Thank you for submitting this proposal and for your response to the reviewers' comments.

I am pleased to inform you that ethical approval has been given by Chair's action on behalf of the University Research Ethics Committee.

I wish you every success with your research.

Yours sincerely,

XXXXXXXXXX
Secretary, LSBU Research Ethics Committee

cc:
Prof **XXXXXXXXXX**, Chair, LSBU Research Ethics Committee

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Appendix 15 - Thematic analysis (Braun and Clarke, 2006): how it was conducted and ‘stress’ as an exemplar of the staged process

This appendix is in two sections. The first section presents a detailed description of each stage of the thematic analysis process that was carried out in this research to analyse the qualitative Phase 4 data. Each stage is based on the thematic analysis process described by Braun and Clarke (2006) and discussed in Section 4.9.2. The second section presents an actual example of how the data were analysed. Using the theme ‘newly qualified nurse stressors’, each stage is presented concluding with the final list of sub-themes. The next appendix, Appendix 16, provides the full list of themes that were created from the analytical process, which also features the ‘newly qualified nurse stressors’ theme and sub-themes shown in this appendix.

Description of how thematic analysis was carried out in this research using the Braun and Clarke (2006) stages

Stage 1 - Familiarising yourself with your data

- The Chief Investigator (CI) conducted all interviews so there was some pre-analysis familiarity.
- All interview recordings were listened to.
- All transcripts were read with notes made in the margins and interesting quotes highlighted.

Stage 2 - Generating initial codes

- All transcripts were re-read and all points of interest assigned a short phrase code. All short phrase codes were listed.
- The participant’s individual code and the page number of the transcript were retained against the short phrase code for identification and cross-checking.
- Once the short phrase coding was completed, collective words were identified. All relevant short phrase codes were grouped around the collective words.

Stage 3 - Searching for themes

- Short phrase codes and collective words were grouped further and sorted into potential themes.
- Some short phrase codes appeared in several groups as their exact location was not clear.
- No short phrase codes were discarded, but not all of them could be grouped.

Stage 4 - Reviewing themes

- Themes and sub-themes were determined and refined. This eventually needed to be done four times.
- Short phrase codes within the themes were checked to ensure they related to the theme.

- Themes were checked to ensure they related to their short phrase codes and sub-themes.
- All transcripts were re-read in conjunction with the proposed themes to check they fitted and that nothing had been missed that should have been coded initially.

Stage 5 - Defining and naming themes

- Some themes and sub-themes were re-titled using words from the narrative where possible to ensure their meaning was captured.
- Some sub-themes were further refined as they were not distinct enough.

Stage 6 – Producing the report

- The qualitative sections presented throughout Chapters 5-7 use illustrative quotes to justify each issue presented.
- Each issue presented originated from an identifiable short phrase code from earlier stages in this analytical process.

Exemplar of the thematic analysis process used in this research: ‘newly qualified nurse stressors’

Stage 1 – Highlighted extracts from two transcripts with notes in the margin

Interview dialogue between participant and Chief Investigator (CI)	Margin notes
<p>CI: Okay, thanks for coming. The first question then, what things have caused you stress since qualifying, sort of in the first year of your well, year and a bit now of your job?</p> <p>A24: Okay, well, with regards to the job, you don't mean, sort of, outside things or...?</p> <p>CI: More work-related.</p> <p>A24: Just work related? Okay. What I knew would all along, which would be staff - never the patients, always be staff. I knew that right from day one.</p> <p>CI: Because you'd worked on there before or you just anticipated?</p> <p>A24: No, I mean, right from the very first placement it was never, I knew from day one, literally of starting out on the studying route and then going on, it was never going to be the patients that would cause me stress, it was always going to be staff.</p>	<p>Stressor: staff not patients</p> <p>Stressor: staff not patients (knew from student days)</p>

Interview dialogue between participant and Chief Investigator (CI)	Margin notes
CI: Yeah. Are there are other things that have caused you stress?	
B56: Erm [...] not really. It's just the staffing. And I just remember one particular issue where we thought that the senior staff nurses were not really being supportive with the junior ones...	Stressor: staff Senior staff not supporting junior staff
CI: Yeah?	
B56: ...that caused stress because I remember there was one colleague of mine and she went to ask the senior staff nurse for help with something and the way the nurse just spoke back to and everything so she didn't know what to do, so she had to then call another senior person to come and help her and it was escalated and I just, well, you know, as a senior staff nurse you're here to support us, the junior ones. If we don't know something and we come and see you, that's why you're there.	Senior staff nurse uncivil communication when asked a question Role of senior staff nurse is to support junior nurses Senior staff nurse's purpose is to help junior nurses. [Interesting opinion]

Stage 2 – list of short phase codes

Newly qualified nurse stressors

Wards merging/service re-structuring
 Senior management decisions that adversely impact the ward
 Lack of equity in access to courses within team
 Power struggles with HCAs
 Lack of equipment
 Rigidity of ward work schedules
 Coping with shifts compared to student days
 Different shifts, back to back
 Look at rota to see who you are working with
 Paperwork
 Sometimes needless
 Related fears
 Floating off ward
 Internal rotation
 Disorganisation within the workplace
 New job, new hospital
 Lack of I.T. training to input patient data
 Unmanageable workload
 Being left in charge
 Different teams of doctors
 When self-developed strategy to manage workload is interfered with
 Relatives

- Inadequate staffing levels
- Missing the doctor's ward round
- Increased responsibility for patients
- Fear of being asked a question
 - Not knowing the answer
- Work (lack of support)
- Fear of litigation/NMC
- Sudden change student to staff nurse
- Giving medication
- Fear of making an error
- Must learn everything quickly
- Did not learn or experience something as a student
- Don't know what I am doing
- Being expected to know
- Gaps in knowledge
- Lack of experience
- What to do in an emergency
- Trying to do everything perfectly
- Ward outlier patients
- Doing as trained to do
- Cannot do total patient care (lack IV certificate)
- Upholding manager's standards
- Witnessing substandard in others
- Pressure to conform to others expectations
- Pressure of workload – have to cut corners contrary to taught ideals
- Having to ask for...
 - Access to training
 - Ask nurses for...
- Fear of receiving unacceptable attitude/behaviour
 - Witnessed towards others
 - Previously received
 - From other newly qualified nurses stories
- Have received unacceptable attitude/behaviour
 - Team/unspecified individuals
 - Communication
 - General feelings
 - Work/workload
 - Ward/team manager - Communication
 - HCA - Communication
 - Matron - Communication
 - Nurses
 - Communication
 - Work/workload
 - Lack of commitment by some
 - Long-serving nurses
 - Communication
 - Feeling part of the team
 - Work/workload

Stage 3 - Codes were grouped further and sorted into potential themes

Newly qualified nurse stressors

Caught up in politics

- Wards merging/service re-structuring
- Senior management decisions that adversely impact the ward
- Lack of equity in access to courses within team
- Power struggles with HCAs
- Lack of equipment
- Rigidity of ward work schedules

Shifts

- Different shifts, back to back
- Look at rota to see who you are working with

Paperwork

- Sometimes needless
- Related fears

Change job location/speciality

- Floating off ward
- Internal rotation

Work/workload

- Lack of I.T. training to input patient data
- Unmanageable workload
- Being left in charge
- Different teams of doctors
- When self-developed strategy to manage workload is interfered with
- Relatives
- Inadequate staffing levels
- Missing the doctor's ward round

Feelings and fears

- Increased responsibility for patients
- Fear of being asked a question
- Not knowing the answer
- About work (implied lack of support)
- Fear of litigation/NMC
- Sudden change student to staff nurse
- Giving medication
- Fear of making an error

Lack of knowledge

- Must learn everything quickly
- Did not learn or experience something as a student
- Don't know what I am doing
- Being expected to know
- Gaps in knowledge
- Lack of experience
- What to do in an emergency

Upholding own standards of professionalism and care

- Trying to do everything perfectly
- Ward outlier patients
- Doing as trained to do
- Cannot do total patient care (lack IV certificate)

- Upholding manager's standards
- Witnessing substandard in others
- Pressure to conform to others expectations
- Pressure of workload – have to cut corners contrary to taught ideals
- Having to ask for...
 - Access to training
 - Ask nurses for...
- Fear of receiving unacceptable attitude/behaviour
 - Witnessed towards others
 - Previously received
 - From other newly qualified nurses stories
- Have received unacceptable attitude/behaviour
 - Team/unspecified individuals
 - Communication
 - General feelings
 - Work/workload
 - Ward/team manager - Communication
 - HCA - Communication
 - Matron - Communication
 - Nurses
 - Communication
 - Work/workload
 - Lack of commitment by some
 - Long-serving nurses
 - Communication
 - Feeling part of the team
 - Work/workload

Stage 4 - Themes and sub-themes determined

Newly qualified nurse stressors

- Factors related to the job
 - Caught up in politics
 - Shifts
 - Paperwork
 - Change job location/speciality
 - Work/workload
- Factors related to the individual
 - Feelings and fears
 - Lack of knowledge
 - Upholding own standards of professionalism and care
- Unacceptable attitude/behaviour
 - Have received unacceptable attitude/behaviour
 - Team/unspecified individuals
 - Ward/team manager
 - HCA
 - Matron
 - Nurses
 - Fear of receiving unacceptable attitude/behaviour

Stage 5 – The finalised themes and sub-themes determined

Stress and the newly qualified nurse

Sources of stressors in newly qualified nurse

Factors related to the person

Feeling terrified and criticised

Knowledge deficits

High standards and hard adjustments

Factors related to the job

Incivility: it's not the job, it's the people you work with

Work/workload

Always short staffed and taking charge of the shift

Trying to balance everything

Shift work: obsessed about the rota

You are an employee: they can do what they want

Appendix 16 - Final list of themes from the Phase 4 qualitative data

Using the thematic analysis process described by Braun and Clarke (2006) a final list of themes, sub-themes and sub-sub-themes was derived from the Phase 4 data.

Aspects of transition

- The personal transition experience
 - Need 'just passed' plates
 - Affecting the team
 - Comparing and being judged
 - Transition duration: the big turning point
- Personal qualities impacting on transition
 - High ideals for self and others
 - Desperately wanting to learn
- Personal barriers during transition
 - Feeling a bit alone
 - Rollercoaster confidence

Stress and the newly qualified nurse

- Sources of stressors in newly qualified nurse
 - Factors related to the person
 - Feeling terrified and criticised
 - Knowledge deficits
 - High standards and hard adjustments
 - Factors related to the job
 - Incivility: it's not the job, it's the people you work with
 - Work/workload
 - Always short staffed and taking charge of the shift
 - Trying to balance everything
 - Shift work: obsessed about the rota
 - You are an employee: they can do what they want

Coping strategies and the newly qualified nurse

- Analysed it and turned it round
- I sorted the problem
- Talk about everything to everybody
- Relaxation strategies
- Avoiding the problem

Social support and the newly qualified nurse

Support in action

The 'good' team: you're not alone

The manager is key

Preceptorship

What (is) preceptorship?

Organisation of preceptorship: looked good on paper

Quality preceptoring: my go-to person who tests me

Resilience and hardiness and the newly qualified nurse

Hardiness and resilience

Hardiness: I'll just keep soaking it up

Resilience: I've risen above it

Looking to the future

Support in action for the future

Pre-registration nurse education

Commencing as a newly qualified nurse

Previous experience of the job location

Starting the job with another newly qualified nurse

Improvements to preceptorship

Developing the newly qualified nurse

Scheduled, regular meetings with the manager

Access to further education and development

Graduated increase in work/workload

Newly qualified nurse forum

Appendix 17 - Summary of the preceptorship received by Phase 4 participants as reported during their interview

Participant	Designated preceptorship co-ordinator	Preceptorship assessment document	Preceptor allocated
A23	No	Unknown	No
A15	No	Yes	No
A24	Job 1: No Job 2: Yes (PDN)	Job 1: No Job 2: Yes (SD, MD)	Job 1: No Job 2: Yes
B104	No	Yes (SD)	No
B56	Yes (PDN)	Yes (SD, MD)	Yes (Two allocated)
B89	No	No	No (Daily allocation of a nurse to work with. Duration unknown.)
B98	Yes (manager)	Yes (SD)	Yes (Not qualified to sign-off specialist community skills)
C138	No	Yes	Yes (Two allocated: ward manager and Junior Sister. Barely worked with either)
C133	Job 1: No Job 2: n/a (>12 months post-qualifying)	Job 1: Unknown Job 2: n/a	Job 1: Yes (Part-time Junior Sister allocated. Barely worked with them) Job 2: n/a
C155	No	Yes (SD)	No (Daily allocation of a nurse to work with for 3 weeks)
C129	No	Yes (SD) (Had to get their own from a friend.)	Yes (Had to ask a nurse to be their Preceptor)
C185	Yes (manager)	Yes	Yes (One allocated after 3 months in the job)

Participant	Designated preceptorship co-ordinator	Preceptorship assessment document	Preceptor allocated
D283	Job 1: No Job 2: No Job 3: n/a (>12 months post-qualifying)	Job 1: No Job 2: Yes Job 3: n/a	Job 1: Yes (One allocated, but was on leave for 5 weeks. No replacement allocated.) Job 2: No Job 3: n/a
D266	Yes (PDN)	Unknown	Yes
SD - Skills document MD - Medication document PDN - Practice Development Nurse			

Appendix 18 - Recommendations to support newly qualified nurses in the future by Phase 4 participants

Provider	Recommendation	Participant
HEI	Session for nursing students at the end of their nurse education from 12 months post-qualifying newly qualified nurses	A15, A23, A24, B56, B89, B104, C129, C138, C155, C185, D283, D266
	Named person at HEI to offer advice and guidance post-qualification	C138
	Newly qualified nurse advice service (on campus, via phone, via social media)	C133
	Teach the psychology of human behaviour	D283
JL	Scheduled feedback from manager every 1-2 months including asking how you are, if you have problems, identify areas for improvement	A23, B89, C138, C155
	Timetabled training and course access	A24, C138
	Increase the number of patients a newly qualified nurse is responsible for slowly	A24, C129
	Not include newly qualified nurses in the number of staff per shift for 2 months	C129
	Grant the newly qualified nurse time to be newly qualified	A15
	Buddy newly qualified nurse with a 6 months post-qualifying newly qualified nurse	A15, B56
	Buddy newly qualified nurse with a 12 months post-qualifying newly qualified nurse, but not based in the same job location	D283
	Allocate a preceptor who is suitably qualified to be able to assess and sign-off all required skills and knowledge	B98
	Allocate a preceptor who will actually be available to work with and offer support consistently	C138, C155
	Implement support that is tailored to the individual needs and personality of the newly qualified nurse	C133
	Newly qualified nurse resource folder available in all job locations	C129

Provider	Recommendation	Participant
ORG	Newly qualified nurse forum to meet and learn, run by the organisation	B89, B104, C129, D283
	Detailed, job specific induction programme, run by the organisation	A24
	Implement a standard preceptorship programme for all job locations to follow within an organisation	C185
	Senior management to be accessible for support	B98
	Organisation should have a named person responsible for, and accessible to, all newly qualified nurses	D283
JL/ORG	Newly qualified nurse should be informed if the job location has experienced difficulties with previous newly qualified nurses	D283
	Pre-employment letter from the organisation detailing names of preceptor(s) and buddies	B56
	Structured preceptorship programme should be initiated immediately on commencing job	A24, C129
HEI - recommendation for a HEI that educates pre-registration nurses JL - recommendation for the job location ORG - recommendation for the healthcare organisation		